

THE EFFECT OF CULTURAL CONFIGURATIONS ON INTERNATIONAL BUSINESS PERFORMANCE

Case: Moomin Characters

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Abstract

Several academics have studied macro environment and strategic decisions and their importance to international business. A new trajectory concerns culture especially important. However, contradictory suggestions are found to occur in existing research regarding the importance and effects of culture on international business performance. Opposite perspectives create a current dilemma for both international business scholars and practitioners and indicate a need for additional research in the field.

The aim of this study is to examine how culture affects international business performance from a brand licensor perspective. The main research question is “*How does culture affect brand licensor sales revenue?*”. Two methodologies are applied, multiple regression analysis (MRA) and fuzzy-set qualitative comparative analysis (fsQCA). The case company of the study is Moomin Characters. Several public databases and information from Moomin Characters management is utilized to collect data.

Regarding macro environment and strategic decisions, the results of the study support existing theory on their importance and effect on international business performance, especially from a brand licensor sales revenue perspective. Regarding the main focus of the research, culture, while no cultural configurations are found to consistently lead to outperforming brand licensor sales revenue, four configurations are found to consistently lead to underperforming brand licensor sales revenue. Therefore, while a brand licensor may perform well in several different cultures without a certain cultural fit taken into account, the results of the study indicate that some cultural combinations may lead to a weaker performance than others.

Even though this study is conducted as a case study and it reflects the business of Moomin Characters as an extensively international brand licensor with a unique artistic and literary brand dimension, the results can be interpreted to other contexts as well. In addition to such international brand licensors that share similar values to their brand than Moomin Characters, internationally operating brand licensors in general and to some extent even international companies as a such benefit from the results.

Keywords culture, configuration, international business performance, brand licensing, macro environment, strategic decisions, multiple regression analysis, fuzzy-set qualitative comparative analysis

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Useat akateemikot ovat tutkineet makroympäristöä ja strategisia päätöksiä ja niiden tärkeyttä kansainväliselle liiketoiminnalle. Sittenkin etenkin kulttuuri on nostettu erityisen tärkeäksi. Tämänhetkinen tutkimus sisältää kuitenkin ristiriitaisia ehdotuksia liittyen kulttuurin tärkeyteen ja vaikutuksiin kansainvälisen liiketoiminnan suorituskykyyn liittyen. Vastakkaiset näkemykset luovat ajankohtaisen dilemman sekä kansainvälisen liiketoiminnan tutkijoille että harjoittajille, ja osoittavat tarpeen lisätutkimukselle.

Tämän tutkimuksen päämäärä on tutkia kulttuuristen konfiguraatioiden vaikutusta kansainvälisen liiketoiminnan suorituskykyyn brändilisensoijan perspektiivistä. Päättökysymys on ”*Miten kulttuuri vaikuttaa brändilisensoijan myyntituloon?*”. Tutkimuksessa on käytössä kaksi tutkimusmetodia, multiple regression analysis (MRA) ja fuzzy-set qualitative comparative analysis (fsQCA). Moomin Characters on tutkimuksen case –yritys. Useita julkisia tietokantoja ja informaatiota Moomin Characters johdolta käytetään datan keruussa.

Liittyen makroympäristöön ja strategiaan päätöksiin, tutkimuksen tulokset tukevat tämänhetkistä teoriaa niiden tärkeydessä ja vaikutuksessa kansainväliseen liiketoimintaan liittyen, erityisesti brändilisensoijan myyntitulon perspektiivistä. Liittyen tutkimuksen pääpainopisteeseen eli kulttuuriin, sellaisia kulttuurisia konfiguraatioita ei löydy, jotka johtaisivat konsistentisti ylisuoriutuvaan brändilisensoijan myyntituloon, mutta neljä sellaista kulttuurista konfiguraatiota löytyy, jotka johtavat konsistentisti alisuoriutuvaan brändilisensoijan myyntituloon. Siten, samaan aikaan kun brändilisensoija voi suoriutua hyvin useammassa erilaisessa kulttuurissa ottamatta tiettyä kulttuurista yhteensopivuutta huomioon, tutkimuksen tulokset osoittavat, että jotkut kulttuuriset konfiguraatiot voivat johtaa heikompaan suorituskykyyn kuin toiset.

Vaikka tämä tutkimus on suoritettu case-tutkimuksena ja se heijastaa Moomin Charactersin liiketoimintaa mittavana kansainvälisenä brändilisensoijana, jolla on uniikki taiteellinen ja kirjallisuuden pohjautuva brändidimensio, tuloksia voidaan tulkita myös muissa konteksteissa. Sellaisten kansainvälisten brändilisensoijien lisäksi, jotka jakavat samanlaisia arvoja brändissään kuin Moomin Characters, myös kansainvälisesti toimivat brändilisensoijat ja jossain määrin myös kansainväliset yritykset yleisesti hyötyvät tuloksista.

Avainsanat kulttuuri, konfiguraatio, kansainvälisen liiketoiminnan suorituskyky, brändilisensointi, makroympäristö, strategiset päätökset, multiple regression analysis, fuzzy-set qualitative comparative analysis

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1 INTRODUCTION

Several academics have studied macro environment and its importance to international business performance and decision-making (Ball et al. 2010; Hamilton & Webster 2009; Wild et al. 2010; Morrison 2009; Daniels et al. 2011; Morrison 2006). Economic and socio-cultural environments have further been proved vital macro environmental factors in international business and international marketing contexts (Ball et al. 2010; Hamilton & Webster 2009; Wild et al. 2010; Morrison 2009; Daniels et al. 2011; Morrison 2006; Hollensen 2014; Keegan & Green 2008; Czinkota & Ronkainen 1995). Furthermore, strategic decisions have been the subject of numerous business studies and current literature indicates effects on international business performance (Gimeno & Woo 1996; Lämsiluoto & Eklund 2008; Goll & Rasheed 2005; Fredrickson 1983; Eisenhardt 1989; Rajagopalan et al. 1993).

While traditional international business has been concerned with macro environmental factors as a whole, a new trajectory concerns culture especially important to international business (Leung et al. 2005). However, the effects of culture are still suggested to be studied in conjunction with other macro variables (Leung et al. 2005). Culture has been studied from various perspectives, including, e.g., international business performance as a such, strategy execution, export performance, innovation performance, cross-border acquisition performance, international expansion performance, and brand performance (Hutzschenreuter et al. 2014; Pressey & Selassie 2003; Tihanyi et al. 2005; Kessapidou, S., & Varsakelis, N. C. 2002; Banerjee 2005; Ross 1999; Van Everdingen & Waarts 2003; Morosini & Singh 1994; Hutzschenreuter et al. 2014; Banerjee 2008). However, contradictory suggestions are found to occur in existing research regarding the importance and effects of culture on international business performance. Indeed, while some international business researchers emphasize the importance of cultural fit and cultural differences in relation to international business performance (Ross 1999; Hill & Jones 1998; Banerjee 2008; Van Everdingen & Waarts 2003; Li & Guisinger 1991; Hutzschenreuter et al. 2014; Nes et al. 2007), others oppose such suggestions (Pressey & Selassie 2003; Gomez-Mejia & Palich 1997; Tihanyi et al. 2005; Morosini et al. 1998; Shane et al. 1995; Kessapidou & Varsakelis 2002; Park & Ungson 1997). Such opposite perspectives create a current dilemma for both international business scholars and

practitioners and further indicate a need for additional research in the field. Furthermore, there is a need for experimental approaches to study culture, including multi-method approaches to contribute to the current literature on culture and international business (Leung et al. 2005). Moreover, a lack of academic research on cultural configurations remains, as well as a gap in current research with a focus on the effects of culture on sales revenue in specific.

Brand licensing is further a business model that helps a licensor to gain fast access to international markets, to increase brand awareness on an international level, and to access the expertise of international companies (Quelch 1985). Brand licensing facilitates international business as it enables foreign market entry at a lower cost than direct entry and therefore enables to enter international markets that could otherwise be considered unattractive (Jayachandran et al. 2013). The case company of the study is Moomin Characters and the research questions are derived from the above discussion on macro environment, strategic decisions, culture, and international business performance, combined with the case company's business model as an extensively international brand licensor. The definition of brand licensing and case company introduction are presented more in depth in chapter 2.

The main research question is:

How does culture affect brand licensor sales revenue?

The sub-questions are:

What is the effect of economic environment, socio-cultural environment, and strategic decisions in general on brand licensor sales revenue?

Are there cultural configurations that lead to outperforming brand licensor sales revenue i.e., to brand licensor sales revenue that exceeds expectations?

Are there cultural configurations that lead to underperforming brand licensor sales revenue i.e., to brand licensor sales revenue that falls behind expectations?

Two methodologies are utilized, multiple regression analysis (MRA) and fuzzy-set qualitative comparative analysis (fsQCA). MRA and fsQCA are indeed suggested to be

utilized as complementary analyses (Vis 2012; Ho et al. 2016; Gligor & Bozkurt 2020). MRA is conducted to examine the selected economic, socio-cultural, and strategic decision variables and their effect on brand licensor sales revenue. In specific, MRA examines how much of the variation in brand licensor sales revenue is explained by such factors and further explains their associative relationships and strengths. FsQCA further contributes to explaining the remaining variation, with focus on finding cultural configurations that lead to either outperforming or underperforming brand licensor sales revenue.

As a result, this study focuses on examining the effect of cultural configurations on international business performance from a brand licensor perspective and contributes to existing literature in several ways. It advances research on how culture affects brand licensor sales revenue in specific, indicates the importance of macro environment and strategic decisions on international business performance, helps to reconcile the seemingly paradoxical perspectives in current international business research related to culture, advances the use of multi-method approaches in cultural studies, and increases research on cultural configurations. Furthermore, managerial implications are presented.

The structure of the thesis is as follows. The thesis starts by defining brand licensing and introducing the case company. A literature review follows and it discusses first, international business performance and second, culture. Then, methodology one (MRA) is presented and the analysis related to it is discussed, followed by methodology two (fsQCA) and its related analysis part. Discussion concludes the thesis.

2 DEFINITION OF BRAND LICENSING AND CASE COMPANY INTRODUCTION

Brand licensing is defined as a business model in which the brand owner (the licensor) grants another company (the licensee) the right to manufacture, promote, distribute, and sell products by using the brand (Jayachandran et al. 2013; Battersby & Simon 2010; Robinson et al. 2014). For the licensor, brand licensing helps in revenue generation through realized royalties on licensee product sales (Jayachandran et al. 2013; Robinson et al. 2014). For the licensee, considerable recognition of the licensor's brand helps in turn to develop a profitable business and to generate higher revenues (Robinson et al. 2014). On the other hand, challenges of brand licensing for the licensor include possible opportunistic behavior of a licensee, including e.g. inappropriate use of the brand by the licensee as well as poor quality of manufactured products, promotion, or distribution choices under the brand name (Robinson et al. 2014). A licensing contract between the two parties defines the terms of use and is vital for a successful partnership to occur (Jayachandran et al. 2013).

When it comes to international business, brand licensing helps the licensor to gain fast access to international markets, to increase brand awareness on an international level, and to access the expertise of international companies (Quelch 1985). Brand licensing further facilitates international business as it enables foreign market entry at a lower cost than direct entry and therefore enables to enter international markets that could otherwise be considered unattractive (Jayachandran et al. 2013).

The case company of the study is Moomin Characters, founded in 1958 by Tove Jansson and her brother Lars Jansson. Moomin Characters owns Moomins' brand and further manages its copyright and registrations for brand licensing. The first book about the Moomin family was written by Tove already in 1945 in Swedish, in Finland. Ever since, the books have been translated into 49 languages and they have appeared in various different media such as television, film, theatre, opera, ballet, newspapers, radio, and multimedia. Today, Moomin Characters' licensed products include various products in e.g. home, fashion, and food. Especially, Moomin Characters differentiates itself from other

extensively international brand licensors with its unique artistic and literary brand dimension.

Since the company foundation, Moomin Characters has gained a wide presence internationally. Currently, brick and mortar Moomin Shops are present in seven countries, including Finland, United Kingdom, United States, Japan, Hong Kong, South Korea, and Thailand. In addition, Moomin Theme Parks have been opened in Finland and Japan, and Moomin Cafés are present in Finland, Japan, Hong Kong, South Korea, Thailand, and Taiwan. Furthermore, Moomin.com online shop delivers Moomin products worldwide, and for example, in 2018 Moomin products were delivered to a total of 79 countries.

As a result, Moomin Characters has gained international success as a brand licensor in markets that are highly different from each other in several aspects, including culture. Therefore, selecting Moomin Characters as the case company offers an interesting research setting to examine how culture affects the company's international business performance as a brand licensor. Moomin Characters' international business performance as a brand licensor is measured in this study by Moomin.com online shop performance in sales revenue. First, to understand the contributions of macro environmental and strategic decisions on brand licensor sales revenue in general, selected economic and socio-cultural environments as well as strategic decisions are examined and their effect on Moomin.com sales revenue is studied. Second, to study how culture affects brand licensor sales revenue, the effect of cultural configurations on Moomin.com sales revenue is examined in detail.

3 INTERNATIONAL BUSINESS PERFORMANCE

In this chapter, international business performance is discussed as the first part of the literature review. International business performance as a phenomenon is first defined, followed by discussion on macro environment, company's internal environment, and measures of international business performance.

3.1 Definition of international business performance

Hult et al. (2008) define international business simply as business phenomena that occur in an international context. Victor (1992) also defines it as any business that is conducted across national borders. More detailed definitions are also presented. Hill (1997) views international business as business activities that include transfer of resources, services, knowledge and skills, or information that occur across national borders. Furthermore, Daniels et al. (2011) define international business as commercial transactions between two or more countries. Such commercial transactions include sales, investments, and transportation (Daniels 2011). International business is also referred to as business activity that relates to international trade or international investment (Sperenda 2009). When it comes to business performance, Ward et al. (2002) define it as the long-term wellbeing of an organization while Hult et al. (2004) present it as the achievement of organizational goals. Neely and Hii (1998) define business performance in terms of financial and non-financial factors.

Finally, international business performance is defined as a key indicator for assessing global organizational success (Hult et al. 2008). It is presented to be theoretically, empirically, and from a managerial perspective at the heart of strategic management (Venkatraman & Ramanujam 1986). Mostly, international business performance is divided into the measures of financial performance, operational performance, and overall effectiveness (Hult et al. 2008; Venkatraman & Ramanujam 1986). Such measures are discussed in detail in section 3.4.

3.2 Macro environment

Macro environment refers to large societal forces that both shape opportunities and pose threats to organizations, as well as affect organizations' micro environment (Kotler et al. 2005: 88; Kotler et al. 2005: 91). Macro environment has been highly studied in business research and its effect on organizational performance has been recognized (Ahmad 2012). Furthermore, several scholars discuss macro environment and its importance to international business and international marketing (Hollensen 2014; Ball et al. 2010; Keegan & Green 2008; Hamilton & Webster 2009; Wild et al. 2010; Morrison 2009; Daniels et al. 2011; Czinkota & Ronkainen 1995; Morrison 2006). Macro environment is further argued to play a critical role in organizational performance, including, for example, growth and profitability (Ahmad 2012; Kotha & Nair 1995; Wagner III & Gooding 1997).

Macro environment has become a primary concern to organizations (Ahmad 2012). Rapid changes in macro environment demands organizations to adapt to such environmental changes, in order to maintain their competitive situation (Lämsiluoto & Eklund 2008). While major macro environmental forces are uncontrollable, they should be however monitored and responded to (Ahmad 2012). In fact, organizations that are able to respond to environmental uncertainties are claimed to be more effective in performance (Bourgeois 1985; Lumpkin & Dess 1995).

While the main forces of macro environment have been listed in different ways, the *PEST framework* is the most notable among scholars (Ahmad 2012; Fifield & Gilligan 1995; Iroegbu 2010; Kotler et al. 2008; Armstrong & Kotler 2011). The framework consists of political, economic, socio-cultural, and technological forces (Ahmad 2012; Fifield & Gilligan 1995; Iroegbu 2010; Kotler et al. 2008; Armstrong & Kotler 2011; Morrison 2006). The framework has further been expanded to *PESTLE* which includes the addition of legal and environmental forces (Banerjee 2005; Tapper 2005). In this study, the macro environmental focus is on economic and socio-cultural environments and their relation to international business performance. Table 1 includes reviewed academic books on international business and international marketing. It indicates mutual economic and socio-cultural factors in such literature which further set the macro environmental scope for this study.

TABLE 1. Reviewed academic books on international business and international marketing.

	Ball, D. A., Geringer, J. M., & Minor, M. S., & McNett, J. M. (2010).	Czinkota, M. R., & Ronkainen, I. A. (1995).	Daniels, J. D., Radebaugh, L. H., & Sullivan, D. P. (2011).	Hamilton, L., & Webster, P. (2009).	Hollensen, S. (2014).	Keegan, W. J., & Green, M. C. (2008).	Morrison, J. (2006).	Morrison, J. (2009).	Wild, J. J., Wild, K. L., & Han, J. C. (2010).
Economic									
GNI per capita	x	x	x	x	x	x	x	x	x
GINI index (income distribution)	x		x	x			x	x	
Inflation	x	x	x	x			x	x	
Socio-cultural									
Geographic distance		x	x		x				
Median age (age distribution)		x			x	x			
Hofstede's cultural dimensions	x	x	x	x	x			x	x

The economic factors of GNI per capita, GINI index, and inflation as well as the socio-cultural factor of Hofstede's cultural dimensions are highly present in the reviewed academic literature. While the socio-cultural factors of geographic distance and median age are slightly less present, they still show theoretical importance. Furthermore, they are also interesting factors to Moomin Characters' business and are therefore included in this study. Next, the economic and socio-cultural factors of table 1 are discussed in detail. Due to cultural focus of the study, the factor of Hofstede's cultural dimensions is presented explicitly in the second part of the literature review.

3.2.1 Economic environment

Economic forces are among the most important uncontrollable environmental forces for managers (Ball et al. 2010: 212). According to Czinkota and Ronkainen (1995: 51), macro environmental analysis should in fact start with the evaluation of economic factors. The economic environment consists of factors that impact both consumer purchasing power

and spending patterns (Kotler et al. 2005: 102). Depending on the society, the economic environment may therefore vary a lot.

GNI per capita

Gross national income (GNI) per capita is highly utilized to measure wellbeing of citizens in different countries (Ball et al. 2010: 216). It is a nation's total income per capita from all goods and services produced over a one-year period, including income of its residents or companies from abroad (Wild et al. 2010 :155; Morrison 2009: 79; Hollensen 2012: 227; Daniels et al. 2011: 181). For GNI per capita comparison matters between countries, local currencies are converted to a common currency and a purchase power parity (PPP) method is applied (Ball et al. 2010: 217-218; Wild et al. 2010: 159; Daniels et al. 2011: 185). In this study, GNI per capita based on PPP in current international dollars is utilized, with the following definition of The World Bank's (2019) World Development Indicators.

“PPP GNI is gross national income (GNI) converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GNI as a U.S. dollar has in the United States. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad.” (The World Bank 2019).

As GNI per capita includes a nation's income from assets abroad, it is a broader measure of economic development and activity of a nation than GDP per capita (Wild et al. 2010: 155; Hollensen 2014: 227; Daniels 2011: 181). Furthermore, according to GNI per capita levels, countries may be classified to high-income, middle-income, and low-income countries (Keegan & Green 2008: 50; Morrison 2009: 81).

GINI index

Whereas GNI per capita indicates gross national income per head, it doesn't tell how income is distributed. GINI index is a common measure of income inequality (Morrison 2009: 91; Daniels et al. 2009: 194). Inequality increases to the extent that all population does not have equal shares of income (Morrison 2009: 91). The following definition of The World Bank's (2019) World Development Indicators is utilized in this study for GINI index.

“GINI index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.” (The World Bank 2019).

Therefore, a GINI index of 0 means that all individuals or households have equal share of income whereas a GINI index of 100 indicates that all income within an economy belongs to one individual or one household (Daniels et al. 2009: 194).

Inflation

Inflation refers to a trend in rising overall price level in an economy over a certain period of time and it is therefore a measure of increase in the cost of living (Ball et al. 2010: 317; Hamilton & Webster 2009: 277; Daniels et al. 2009: 188). It is usually measured by consumer price index (CPI) which indicates price changes in a representative basket of consumer goods (Ball et al. 2010: 317; Hamilton & Webster 2009: 277; Morrison 2009: 85). Inflation in consumer prices with annual percentage change (annual %) is utilized in this study, with the following definition of The World Bank’s (2019) World Development Indicators.

“Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly.” (The World Bank 2019).

3.2.2 Socio-cultural environment

Socio-cultural environment includes both social and cultural forces. Societies are composed of both people and their culture, and socio-cultural environments explain these two elements of the society, including social organization and structure (Hamilton & Webster 2009: 127; Ball et al. 2010: 138). To be successful, international businesses have to be aware of socio-cultural differences among different societies (Hamilton & Webster 2009: 151; Morrison 2006: 168). Whereas social environment is related to social characteristics, structures, and institutions, cultural environment is described to be constructed of institutions and other forces that have an impact on a society’s values,

perceptions, preferences, and behavior (Hamilton & Webster 2009: 151; Kotler et al. 2005: 111). Geographic distance, median age, and Hofstede's cultural dimensions are theoretically important factors in socio-cultural environment, as indicated in table 1. Geographic distance and median age are discussed next. Culture as a phenomenon is presented as such in chapter 4, including the factor of Hofstede's cultural dimensions that is discussed in detail in subsection 4.4.1.

Geographic distance

Geographic distance refers to actual distance in kilometers or miles between two locations (Malhotra et al. 2009). Geographic distance can be large or small (Ojala & Tyrväinen 2007). Sometimes geographically close markets may be viewed psychologically distant, mainly due to differences in societal forms and culture (Hollensen 2014 :59). For example, many US companies perceive Canada and even the United Kingdom psychologically closer than Mexico (Hollensen 2014 :59). In this study, geographic distance is defined as distance in kilometers between two capitals, Moomin Characters' home country capital Helsinki and a destination market capital.

Median age

Median age refers to age structures in societies and it is generally higher in developed countries (Czinkota & Ronkainen 1995: 56-57). The following definition of median age by Central Intelligence Agency (2019) is utilized in this study.

“The age that divides a population into two numerically equal groups; that is, half the people are younger than this age and half are older. It is a single index that summarizes the age distribution of a population. Currently, the median age ranges from a low of about 15 in Niger and Uganda to 40 or more in several European countries and Japan.” (Central Intelligence Agency 2019)

Therefore, median age is the centermost value in age distribution of a population.

3.3 Company's internal environment

Macro environment is an important entity that impacts a company's micro environment (Prahalad & Hamel 1994; Chaharbaghi & Nugent 1994; Kotler et al. 2005: 88; Kotler et al. 2005: 91). Micro environmental forces are company itself, competitors, suppliers, intermediaries, customers, and publics (Kotler et al. 2005: 88). Company itself and its internal environment is further crucial when it comes to how it is able to serve its customers and therefore how well it is able to perform overall (Kotler et al. 2005: 88). Company's internal environment consists of different departments of an organization that are further responsible for organizational decision-making and strategy, such as top management, finance, R&D, purchasing, manufacturing, accounting, and marketing (Kotler et al. 2005: 88). Strategic decision-making further forms a central focus area in a company's internal environment (Goll & Rasheed 2005). Strategic processes and decisions have been the subject of numerous business studies and have interested many scholars (Goll & Rasheed 2005; Fredrickson 1983; Eisenhardt 1989; Rajagopalan et al. 1993). Strategic decisions are discussed next in detail.

3.3.1 Strategic decisions

While strategy is defined as, e.g., *“a general plan of action for achieving one's goals and objectives”* (Nickols 2016), *“a broad formula for how a business is going to compete”* (Porter 1986), *“the framework which guides those choices that determine the nature and direction of an organization”* (Zimmerman & Tregoe 1980), and *“the pattern of decisions in a company that determines and reveals its objectives”* (Andrews 1980), the term strategic naturally refers to something that has to do with a strategy (Nickols 2016). Strategic decisions are further decisions that are related to a strategy. Strategic decisions affect business performance and their impact on it has become even more emphasized due to globalization and international business (Gimeno & Woo 1996; Lämsiluoto & Eklund 2008). The factors of subjective history behind the market success, brick and mortar store(s), and third-party distribution are interesting for Moomin Characters' business, and they further set the scope of this study regarding strategic decisions.

Subjective history behind the market success

Strategic decisions of the past and their impacts are often enduring by nature (Golden 1992). Such past strategic decisions should be recalled and taken into account as they may still shape the future (Golden 1992; Bateman & Zeithaml 1989). Both past and current

strategy are related to future business performance (Hambrick & Snow 1977). Subjective history behind the market success is defined in this study as Moomin Characters management's subjective perception on whether a past strategic decision or some other historical reason behind a certain market's performance exists. Examples of past strategic decision are, e.g., Moomin comic strip in Evening News newspaper between the years of 1952-1975 and Moomin anime Japanese television show in 1969-1970. Examples of historical reasons are, e.g., home country, Nordic country, and British Commonwealth State.

Brick and mortar store(s)

Brick and mortar store is a traditional retail store type alongside modern online shop (Rajamma et al. 2007; Schramm-Klein et al. 2007; Chan & Pollard 2003). Brick and mortar stores are viewed more tangible than online shops as they include a physical location that customers can visit and they respond better to human senses (Rajamma et al. 2007; Chan & Pollard 2003). Moreover, brick and mortar stores provide face-to-face interaction between the retailer and their customers (Enders & Jelassi 2000). In this study, a brick and mortar store is defined as a Moomin Shop.

Third-party distribution

Coyle et al. (2003: 425) define third-party distribution as an external organization that performs a part or all of a company's logistics. Furthermore, many authors refer to external distribution parties as such that perform entire or selected logistics functions that have been traditionally performed within a company itself (Van Laarhoven et al. 2000; Lieb 1992; Bagchi & Virum 1998; Murphy & Poist 1998; Van Laarhoven & Sharman 1994). In this study, third-party distribution is defined as a form of distribution that is not Moomin.com or a brick and mortar Moomin Shop and therefore is performed by an external third-party distributor.

3.4 Measuring international business performance

Measurement of business performance is a research field that is highly relevant for both academics and practitioners of various business fields (Marr & Schiuma 2003). To measure international business performance, international business researchers have

mostly utilized one of the three different types of measures which are financial performance, operational performance and overall effectiveness (Hult et al. 2008; Venkatraman & Ramanujam 1986).

Financial performance refers to outcome-based metrics that reflect economic goals (Venkatraman & Ramanujam 1986; Lewin & Minton 1986). In specific, it includes sales-based metrics (e.g., sales growth, growth of foreign sales) and profitability-based metrics (e.g., return on investment, return on sales, return on assets, and return on equity) (Hult et al. 2008; Venkatraman & Ramanujam 1986). According to Hult et al. (2008), sales-based metrics are applied the most (52%) among all overall effectiveness metrics that have been used in international business research between 1995-2005.

Operational performance refers to operational metrics that are non-financial, including product-based metrics (e.g., introduction, quality, market share, and efficiency,) and process-based metrics (e.g., productivity and cycle time) (Hult et al. 2008; Venkatraman & Ramanujam 1986; Lewin & Minton 1986). Market share is applied the most (44%) among all operational outcome metrics that have been used in international business research between 1995-2005 (Hult et al. 2008).

Overall effectiveness refers to a wider conceptualization of performance, including metrics as perceived overall performance as a such and relative competitors, reputation, achievement of objectives, and survival (Lewin & Minton 1986; Venkatraman & Ramanujam 1986). Perceived overall performance is applied the most (47%) among all overall effectiveness metrics that have been used in international business research between 1995-2005 (Hult et al. 2008).

Out of these three types of measures, financial performance is dominant in business research (Hofer 1983; Hult et al. 2008). In this study, financial performance measure type with a sales-based metric of sales revenue is utilized to measure Moomin.com international business performance as a brand licensor.

4 CULTURE

In this chapter, culture is discussed as the second part of the literature review. Culture as a phenomenon is first defined, followed by discussion on levels of culture, current research of culture in regard to international business performance, and measures of culture.

4.1 Definition of culture

Researchers have offered various definitions for culture which indicates the variety of the cultural phenomenon (Morrison 2006: 168). According to Hill (1997: 67), culture is “*a system of values and norms that are shared among a group of people and that when taken together constitute a design for living*”. According to Hofstede (1994), culture is “*the collective programming of the mind which distinguishes the members of one category of people from another*”.

Furthermore, many scholars define culture as learned and shared norms and behavior that are based on values, attitudes, rules, and beliefs of a group of people that further distinguishes it from another group (Ball et al. 2010:138; Daniels et al. 2011: 93; Hamilton & Webster 2009: 151; Morrison 2006: 168; Morrison 2009: 119; Wild et al. 2010: 74; Schwartz 2014). Furthermore, according to Morrison (2009: 119), culture is a mix of values, behavior, communication, and outward expressions. Culture is also described to include techniques, institutions, and artifacts that characterize a society (Ball et al. 2010:138; Wild et al. 2010: 74). It defines boundaries to groups of people and is learned and transmitted from one generation to the next, not only from parents to children but also from social organizations, special-interest groups, the government, schools, and the church (Czinkota & Ronkainen 1995: 130; Ball et al. 2010:138). As different cultures may have significantly different attitudes and beliefs on several matters, cultural problems may occur when two different cultural contexts encounter (Czinkota & Ronkainen 1995: 130; Hamilton & Webster 2009: 151).

4.2 Levels of culture

Culture is structured with several nested levels to it which are global culture, national culture, organizational culture, group culture, and individual culture (Leung et al. 2005; Erez & Gati 2004). Global culture is the most macro level of culture, with other levels below it and individual culture as the most micro level (Leung et al. 2005; Erez & Gati 2004). Each level has its own function and meaning. *Global culture* refers to global institutions and networks that cross cultural borders, *organizational culture* to organizations and the related networks that vary from one another, *national culture* to local cultures that vary from one nation to another, and finally *group culture* and *individual culture* refer to groups and individuals and differences between them (Karahanna et al. 2005; Leung et al. 2005). Differences in cultures within levels are dependent on differences in their values (Schein 1992; Earley 1994; Markus & Kitayama 1991; Erez & Gati 2004).

Each level may further influence each other both ways, as *top-down* and *bottom-up* processes (Leung et al. 2005; Erez & Gati 2004). In such processes, one cultural level affects changes in another level which further indicates that cultures are dynamic (Erez & Gati 2004; Leung et al. 2005). While top-down processes refer to influence of a higher-level culture affecting a lower level culture, bottom-up processes refer to an opposite effect (Klein & Kozlowski 2000). Figure 1 displays the levels of culture as well as top-down and bottom-up processes.

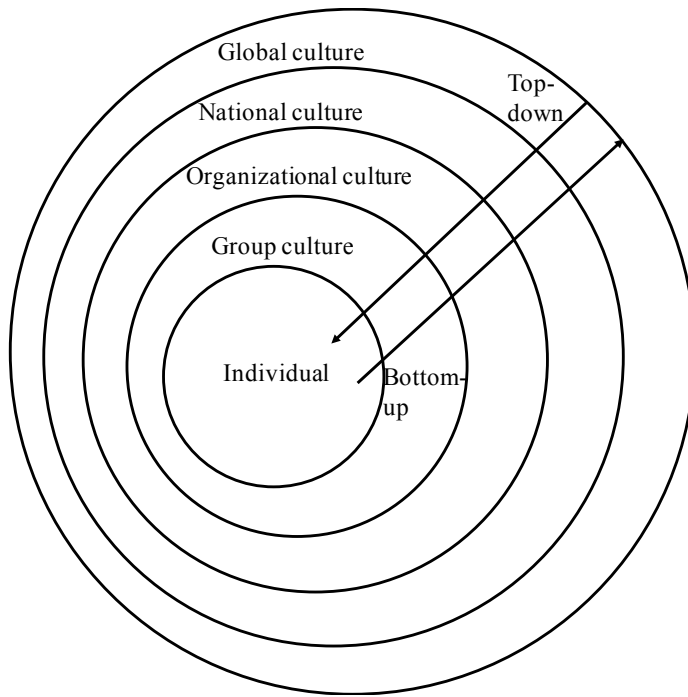


FIGURE 1. Levels of culture (Erez & Gati 2004).

Research may be conducted within one cultural level or as a cross-level study (Erez & Gati 2004). In this research, the level of national culture is the focus. National culture relates to culture of a nation or a society. According to Leung et al. (2005), national culture is indeed defined as “*values, beliefs, norms, and behavioral patterns of a national group*”.

According to Doney et al. (1998), it refers in specific to culture of a society, distinguishing it from other societies and from other forms of cultures, e.g., organizational culture.

National culture became largely studied especially as a result of the classic work of cultural dimensions of Hofstede (1980) (Leung et al 2005; Erez & Gati 2004).

4.3 Culture and international business performance

Culture and its relation to international business has been studied by several researchers. In addition to studies of culture and international business performance as a such (Hutzschenreuter et al. 2014; Pressey & Selassie 2003; Tihanyi et al. 2005; Kessapidou, S., & Varsakelis, N. C. 2002), culture has been also studied in regard to international business in studies of, e.g., strategy execution, export performance, innovation performance, cross-border acquisition performance, international expansion performance, and brand

performance (Banerjee 2005; Ross 1999; Van Everdingen & Waarts 2003; Morosini & Singh 1994; Hutzschenreuter et al. 2014; Banerjee 2008). The following subsections present cultural concepts in detail and their relation to international business performance. Contradictory suggestions are found to occur in literature.

4.3.1 Cultural fit and cultural differences

While some international business researchers emphasize cultural fit, and on the other side, cultural differences in relation to international business performance, others oppose such suggestions.

Regarding *cultural fit*, Ross (1999) emphasizes a fit between culture and organizational strategy. According to him, culture is critical to strategy process and culture should be explicitly examined related to strategy process on each market (Ross 1999). A strategy-cultural fit framework is proposed. Hill and Jones (1998) also present that organizational failure occurs typically when strategy doesn't fit the environment. Banerjee (2008) continues to address the importance of a close match between an organization and its market, in specific between brand culture and national culture. According to him, interpretation of national cultures and further addressing different cultures properly is vital for global success. Banerjee (2008) presents that in case no adaptation for fitting a market's culture is executed and therefore an improper brand-culture fit occurs, it may lead to major setbacks and losses in such market. A brand-culture fit framework is proposed.

When it comes to *cultural differences*, according to Van Everdingen and Waarts (2003) and Li and Guisinger (1991), cultural differences have an effect on international business performance. The study of Van Everdingen and Waarts (2003) indicates that certain national cultures have an effect on performance, especially through differences in innovation adoption. While certain national cultures are found to perform well in adapting innovations and new products, others underperform (Van Everdingen & Waarts 2003). Li and Guisinger (1991) even claim national culture and their differences to have an impact on business failures. Other researchers use the term *cultural distance* and find it in specific to cause negative effects to international business performance. Cultural distance refers to measuring the extent to which cultures are different (Shenkar 2001). According to Hutzschenreuter et al. (2014), cultural distance has a negative effect on international

business performance as a whole. Cultural distance may, e.g., disturb organizational learning and challenge decision-making which are further claimed to negatively affect performance (Hutzschenreuter et al. 2014). Furthermore, Nes et al. (2007) find that cultural distance negatively affects trust and commitment between an exporter and a distributor which may further decrease overall business performance.

However, many researchers have also opposite views. According to Pressey and Selassie (2003), little evidence supports the arguments of culture having an impact on international business performance. Also, Gomez-Mejia and Palich (1997) find no evidence to support that national culture and its differences affect accounting or market measures of performance. Tihanyi et al. (2005) further present that cultural differences have a positive effect on international business performance. This is explained by cultural diversity offering new resources and knowledge as well as increasing innovation and creativity which further enhance performance (Morosini et al. 1998; Shane et al. 1995). Kessapidou and Varsakelis (2002) also find that the higher the cultural distance between a company home country and an affiliate host country, the better the performance of the affiliate. Furthermore, Park and Ungson (1997) and Morosini et al. (1998) present that cultural diversity has a positive impact on cross-border joint venture performance and cross-country acquisition performance.

Depending on whether cultural fit and cultural differences are regarded important or not in an organization, different decision-making and strategies are executed (Banerjee 2008). For example, country-specific strategies apply to organizations that emphasize the importance of cultural fit and cultural differences while standardized strategies apply to organizations of opposite views (Banerjee 2008).

4.3.2 Cultural change

Cultures and their level of change over time may be considered to cause challenges to international business decision makers, not only when it comes to analyzing different global markets but also regarding business performance. While some national cultures are prone to change others are found to stay rather stable (Leung et al. 2005; Gupta & Wang 2004; Reisinger & Crotts 2010; Greider 1998). The concepts of cultural divergence and cultural convergence relate to changes in cultural stability over time (Reisinger & Crotts

2010). They consider whether national cultures are becoming different (divergence) or similar (convergence) (Leung et al. 2005). While divergence refers to variety, convergence refers to homogeneity (Gupta & Wang 2004).

Factors that cause *cultural divergence*, i.e., national cultures becoming more different from each other, include, e.g., importance of cultural identity, complex issues in international trade, and computer-mediated communication (Leung et al. 2005; Gupta & Wang 2004). Cultural identity and strong appreciation of uniqueness of own culture emphasize indeed cultural divergence (Tajfel 1982; Turner 1978; Leung et al. 2005). For example, when own culture is highly appreciated, other cultures and their ideologies may be strongly neglected. This results in different cultures remaining unique and different from each other. While issues in international trade naturally disable cultural spread, computer-mediated communication causes cultural divergence as it enables information from other cultures that may lead to intensified practice and appreciation of own culture (Leung et al. 2005).

When it comes to *cultural convergence*, i.e., national cultures becoming similar, computer-mediated communication also advances this by facilitating spread of knowledge from one culture to another (Leung et al. 2005). Other factors of cultural convergence include, e.g., travel, immigration, and collaboration between organizations and nations (Reisinger & Crotts 2010). Such factors can be viewed to increase spread of cultures and enable cultures to mix with each other.

Scholars present that both concepts should be taken into account in international business and international business performance. While cultural convergence in certain international business activities and markets is clear, cultural divergence still persists (Leung et al. 2005). Indeed, multiple factors cause simultaneous converge and diverge of the world. When it comes to different global markets, while some countries indicate strong cultural convergence others reject globalization and its effects (Greider 1998; Leung et al. 2005; Reisinger & Crotts 2010). Suggestions to handle the dilemma include, for example, regional analysis, i.e., analysis market by market. In fact, there is a need for international business scholars and practitioners to recognize that while different levels of cultural change remain, their precise directions, the factors affecting such directions, and their relation to business should be assessed on a regional level (Leung et al. 2005). Organizations are also suggested to combine the best features of both cultural divergence

and cultural convergence and creatively apply “*in between*” applications in business to drive decisions and performance (Gupta & Wang 2004). Such could include, e.g., middle ground applications between globalized and localized activities and other such perspectives in business.

4.3.3 Traditional and born global approaches

Traditional and born global approaches in regard to internationalization of organizations have been introduced by many scholars (Chetty & Campbell-Hunt 2004; Jolly et al. 1992; Knight & Cavusgil 2014; Hashai & Almor 2004; Hollensen 2014; Oviatt & McDougall 1994). Whereas culture is perceived important to organizations that have a traditional approach to internationalization it is found rather irrelevant for those with a born global approach (Chetty & Campbell-Hunt 2004; Jolly et al. 1992; Knight & Cavusgil 2014).

Organizations with a *traditional approach* to internationalization rely on stages model, i.e., internationalization in incremental steps (Chetty & Campbell-Hunt 2004; Hashai & Almor 2004; Hollensen 2014). The most frequently used model for such is the Uppsala model by Johanson and Vahlne (1977) which presents internationalization as “*a product of a series of incremental decisions*” (Chetty & Campbell-Hunt 2004). It is based on firms gradually progressing through different learning and commitment stages as they internationalize (Johanson & Wiedersheim-Paul 1975). According to traditional approach, firms should first enter markets with a similar culture to their home market and then gradually start to enter cultures that are different from their home market (Chetty & Campbell-Hunt 2004; Reid 1981; Czinkota 1982; Cavusgil 1984; Luostarinen & Welsch 1990; Hashai & Almor 2004).

On the contrary, *born global approach* offers a contradictory perspective. Instead of incremental internationalization, born global approach emphasizes that international markets should be entered rapidly after firms are found (Chetty & Campbell-Hunt 2004; Hashai & Almor 2004; Hollensen 2014: 88). Born global firms are further described as entrepreneurial companies that aim to operate internationally since their establishment (Knight & Cavusgil 2014; Oviatt & McDougall 1994). Born global approach emphasizes that the world is one market and therefore the relevance of culture and cultural differences are found to be rather minimal to business and internationalization processes (Jolly et al.

1992; Knight & Cavusgil 2014; Chetty & Campbell-Hunt 2004). To conclude, depending on the approach that is current in an organization, perspectives on culture and its importance to internationalization may vary within organizations.

4.4 Measuring culture

Kluckhohn-Strondtbeck (1961) approach, Hofstede's (1980) cultural dimensions, Trompenaars (1994) relational dimensions, and the GLOBE study (House et al. 2004) are some of the highly utilized frameworks to measure culture (Hollensen 2014; Ball et al. 2010; Morrison 2009; Keegan & Green 2008; Morrison 2006; Daniels et al. 2011; Wild et al. 2011). Kluckhohn-Strondtbeck's framework includes six value orientations, Hofstede's six national culture dimensions, Trompenaars' five relational orientations, and the GLOBE study nine cultural dimensions (Kluckhohn-Strondtbeck 1961; Hofstede's 1980; Trompenaars 1994; House et al. 2004). Yet, Hofstede's framework remains the most utilized and cited for analyzing and measuring culture, and it has been widely referred to and applied in international business and management research (Yeniyurt & Townsend 2003; Cleveland & Laroche 2007; Morrison 2009: 132). Hofstede's framework of national culture is further the best applied at country level, and the framework and its dimensions remain clearly relevant to be applied in current and future research (Kirkman et al. 2006). Taking into account the immense use of the framework in various business research, the suggestions to apply it especially on country level analysis, focus on national culture, as well as the relevance of it in present and future research, the use of the Hofstede's framework of cultural dimensions is justified in this research. Next, Hofstede's cultural dimensions are discussed in detail.

4.4.1 Hofstede's cultural dimensions

Hofstede's cultural dimensions help to understand and measure cultures as they provide a way to classify national cultures, compare them with each other and further identify how perceptions and interpretations of people in different national cultures differ (Hollensen 2014: 257; Morrison 2009: 132). The framework revolutionized research in culture and international business (Chui et al. 2002; Leung et al. 2005; Gibson 1999). In total, there are six dimensions. The four traditional dimensions include power distance, individualism

versus collectivism, masculinity versus femininity, and uncertainty avoidance (Hofstede 1980; Hofstede & Bond 1988; Hofstede 2001). The two later added dimensions include long-term versus short-term orientation and indulgence versus restraint (Hofstede 1980; Hofstede & Bond 1988; Hofstede 2001). In this research, the four traditional dimensions are utilized to measure differences in national culture. Each dimension is expressed on a scale from 0 to 100.

Power distance

Power distance refers to “*the different solutions to the basic problem of human inequality*” (Hofstede 2011). It measures the level of acceptance and expectation that the less powerful members of the society have on unequal distribution (Hofstede 2011; De Mooij, M., & Hofstede, G. 2010). While inequality exists in all societies, some societies are a lot more unequal than others (Hofstede 2011).

In large power distance societies, power is one of the basic facts of the society (Hofstede 2011). Some examples of how power distance occurs in such societies are uneven income distribution, frequent corruption, autocratic governments, and social hierarchy (Hofstede 2011). Large power distance societies are also described as societies where power derives from prestige, force, and inheritance (Wild et al. 2010: 99). While power is concentrated to those at the top, and the majority of the society simply carries out the decisions, the differences in power and wealth are still quite readily accepted (Hollensen 2014: 257; Hollensen 2014: 691; Morrison 2009: 131).

In small power distance societies, income distribution is rather even, corruption is rare, governments are pluralist and based on majority vote (Hofstede 2011). Compared to large power distance societies, power in small power distance societies is derived from hard work in contrast to prestige, force, and inheritance (Wild et al. 2010: 99). Hierarchy is perceived unequal and primarily established for the matter of convenience (Hofstede 2011). Furthermore, more people expect to participate in decision-making (Hollensen 2014: 257; Morrison 2009: 131).

Based on 2015 data (Hofstede 2015) and its scale (100=large power distance, 0=small power distance), the largest power distance countries are Malaysia (100), Slovakia (100), Guatemala (95), Panama (95), Philippines (94), and Russia (93) while the smallest power

distance countries are Austria (11), Israel (13,) and Denmark (18). Some of the main Moomin markets, based on Moomin.com sales revenue in 2018, brick and mortar store presence, and Moomin Characters management's subjective perception on Moomin.com markets' performance, score as follows. Hong Kong (68), Thailand (64), South Korea (60), Japan (54), United States (40), Germany (35), Finland (33), Norway (31), Sweden (31), and Denmark (18).

Individualism – Collectivism

Individualism versus collectivism refers to “*the integration of individuals into primary groups*” (Hofstede 2011). It indicates how tightly or loosely members of the society live in groups (Hofstede 2011). Whereas in individualistic cultures caretaking of oneself and the closest family members are expected, in collectivistic cultures the importance of extended families and larger groups is high (Hofstede 2011; De Mooij, M., & Hofstede, G. 2010). The dimension measures the degree to which the culture emphasizes individuals instead of the group (Hollensen 2014: 257; Keegan & Green 2008: 127; Wild et al. 2010: 99).

Indeed, in individualistic societies, the “*I*” is often emphasized, personal opinions are expected, and tasks prevail over relationships (Hofstede 2011; De Mooij, M., & Hofstede, G. 2010). Also, people expect to have a right to privacy and classify others as individuals instead of members of groups (Hofstede 2011). Values as independence, personal achievement, pleasure, self-reliance, competition, hard work, and entrepreneurial risk-taking are respected (Liobikienė et al. 2016; Wild et al. 2010: 99).

In collectivistic societies, the “*we*” is emphasized, opinions are rather predetermined by in-group, and relationships prevail over tasks (Hofstede 2011; De Mooij, M., & Hofstede, G. (2010). Members of the society stress on belonging and classify others as in-group or out-group (Hofstede 2011). Furthermore, collective goals are valued higher than those of individuals, and the group shares a responsibility of the well-being of all of its members (Wild et al. 2010: 99; Morrison 2009: 131). Therefore, people in such societies are interdependent on each other (Hollensen 2014: 257; Keegan & Green 2008: 127).

Based on 2015 data (Hofstede 2015) and its scale (100=individualism, 0=collectivism), the most individualistic countries are United States (91) and Australia (90) while the most collectivistic countries are Guatemala (6), Ecuador (8), Panama (11), and Venezuela (12).

Some of the main Moomin markets score as follows. United States (91), Denmark (74), Sweden (71), Norway (69), Germany (67), Finland (63), Japan (46), Hong Kong (25), Thailand (20), and South Korea (18).

Masculinity - Femininity

Masculinity versus femininity refers to “*the division of emotional roles between women and men*” (Hofstede 2011). It measures how values are distributed between genders, on a societal level (Hofstede 2011). Whereas women’s values are found to be rather similar among societies, men’s values are found to differ on a greater level, either highly different from women’s values (i.e., masculine society) or highly similar to women’s values (i.e., feminine society) (Hofstede 2011). Therefore, the dimension of masculinity versus femininity indicates whether a gap between men’s and women’s values exist in a society. Masculine values refer to confidence, competition, personal achievements, and materialism while feminine values refer to humbleness, caretaking, relationships, and quality of life (Hofstede 2011; Wild et al. 2010: 100).

In masculine societies, emotional and societal role differentiation between genders is high (Hofstede 2011). Strength is admired, work prevails over family, and men are expected to handle facts while women are expected to handle emotions (Hofstede 2011). In politics, few women are elected to political positions (Hofstede 2011). Furthermore, traditional gender roles of men and women are strong, and values like success, money, competition, assertiveness, performance, and self-achievement are dominant (Keegan & Green 2008: 127; Morrison 2009: 131; De Mooij, M., & Hofstede, G. 2010; Liobikienė et al. 2016; Hollensen 2014: 257; Hollensen 2014: 691; Ball et al. 2010: 162; Wild et al. 2010: 100).

In feminine societies, emotional and societal role differentiation between genders is low (Hofstede 2011). Both men and women are expected to be humble and caring (Hofstede 2011). Instead of strength, sympathy and work-life balance are perceived important, as well as both genders should handle facts and emotions (Hofstede 2011). When it comes to politics, many women are elected to political positions (Hofstede 2011). Furthermore, caretaking, quality of life, relationships, solidarity, modesty, and preserving environment are dominant values (De Mooij, M., & Hofstede, G. 2010; Hollensen 2014: 257; Hollensen 2014: 691; Ball et al. 2010: 162). Feminine societies appreciate rather immaterial values

compared to masculine societies and the lifestyle in such cultures is generally more relaxed (Hollensen 2014: 257).

Based on 2015 data (Hofstede 2015) and its scale (100=mascularity, 0=femininity), the most masculine countries are Slovakia (100), Japan (95), and Hungary (88) while the most feminine countries are Sweden (5), Norway (8), and Latvia (9). Some of the main Moomin markets score as follows. Japan (95), Germany (66), United States (62), Hong Kong (57), South Korea (39), Thailand (34), Finland (26), Denmark (16), Norway (8), and Sweden (5).

Uncertainty avoidance

Uncertainty avoidance refers to “*the level of stress in a society in the face of an unknown future*” (Hofstede 2011). It measures how significant a culture’s role is for the members of the society to be either uncomfortable or comfortable in situations that are not familiar to them, or somehow unstructured and surprising (Hofstede 2011). In uncertainty avoiding cultures different types of rules and laws prevail as such unknown situations are aimed to be avoided (Hofstede 2011; De Mooij, M., & Hofstede, G. 2010). Career structures, laws, and standards are examples of patterns of life to ensure security and to minimize uncertainty (Hollensen 2014: 257; Hollensen 2014: 691).

In strong uncertainty avoidance societies, uncertainty is perceived as a threat (Hofstede 2011). Members of the society have a need for clarity and structure (Hofstede 2011; De Mooij, M., & Hofstede, G. 2010). Differences are perceived dangerous which can be also viewed in politics where citizens are not regarded competent towards authorities (Hofstede 2011). As a whole, such societies score lower on subjective health and well-being as well as have higher stress and anxiety levels (Hofstede 2011). Furthermore, as people are risk-averse, they are also less open to change and innovation (De Mooij, M., & Hofstede, G. 2010; Hollensen 2014: 257).

In weak uncertainty avoidance societies, the possibility of uncertainty is accepted and life is lived day by day as it comes (Hofstede 2011). Members of the society are comfortable with chaos, dislike rules and think that differences are curious (Hofstede 2011). When it comes to politics, citizens are regarded competent towards authorities (Hofstede 2011). As a whole, such societies have a higher level in subjective health and well-being as well as a

lower level in stress and anxiety (Hofstede 2011). Furthermore, people are more open to change and innovations, and they are more entrepreneurial, innovative, and easy-going themselves (De Mooij, M., & Hofstede, G. 2010; Wild et al. 2010: 100; Morrison 2009: 131; Liobikienė et al. 2016).

Based on 2015 data (Hofstede 2015) and its scale (100=strong uncertainty avoidance, 0=weak uncertainty avoidance), the strongest uncertainty avoidance countries are Greece (100), Portugal (99), Guatemala (98), Uruguay (98), Malta (96), Russia (95), El Salvador (94), Belgium (94) Poland (93), and Japan (92) while the weakest uncertainty avoidance countries are Singapore (8), Jamaica (13), and Denmark (23). Some of the main Moomin markets score as follows. Japan (92), South Korea (85), Germany (65), Thailand (64), Denmark (23), Finland (59), Hong Kong (57), Norway (50), United States (29), and Sweden (29).

5 METHODOLOGY 1: MULTIPLE REGRESSION ANALYSIS

In this chapter, multiple regression analysis (MRA) as a methodology is discussed, including its key characteristics and process.

5.1 Key Characteristics

Regression analysis is a statistical, quantitative methodology to analyze associative relationships between one dependent variable and one or more independent variables (Birks & Malhotra 2006: 519; Field 2013: 198). It is stated as one of the most used statistical methods (Bakar & Tahir 2009). It implies in determining association rather than causality and it is used in the following ways (Birks & Malhotra 2006: 519).

1. To examine if one or more independent variables explain a variation in a dependent variable (i.e., is there a relationship)
 2. To examine how much of the variation in a dependent variable can be explained by independent variables (i.e., how strong is the relationship)
 3. To examine the form of the relationship (i.e., what is the mathematical equation)
 4. To predict the values of a dependent variable
 5. To control for other independent variables when evaluating contributions of a specific variable or set of variables
- (Birks & Malhotra 2006: 519).

The first, second and third of the above are the main reasons for conducting MRA in this study. In the following subsections, its key characteristics of multiple independent variables and regression plane are discussed.

5.1.1 Multiple independent variables

The number of independent variables distinguishes multiple regression analysis from bivariate regression analysis. Whereas bivariate regression analysis, i.e., simple regression analysis includes one dependent variable and one independent variable, multiple regression

analysis includes one dependent variable and two or more independent variables (Birks & Malhotra 2006: 519; Bakar & Tahir 2009; Tranmer & Elliot 2008: 7; Field 2013: 198). Therefore, MRA enables to examine relationships that multiple independent variables and the dependent variable have.

5.1.2 Regression plane

Another distinct character of MRA is creating a regression plane instead of a linear line. Compared to bivariate regression analysis that creates a linear line between the independent and the dependent variable, multiple regression analysis creates a linear combination of two or more independent variables that correlate with the dependent variable (Field 2013: 210). Indeed, the model summarizes the data set with a tinted trapezium in the diagram, i.e., regression plane, that is further defined by an equation (Field 2013: 210). The equation is as follows (Birks & Malhotra 2006: 529; Tranmer & Elliot 2008: 7; Field 2013: 210).

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_p X_{pi} + \varepsilon_i$$

Where,

Y_i = dependent variable

X_1, \dots, X_p = independent variables

β_0 = intercept of the predicted regression plane

β_1, \dots, β_p = slope of different sides of the predicted regression plane

ε_i = error term, i.e., residual associated with the i th observation

$i = 1, \dots, n$

(Birks & Malhotra 2006: 529; Tranmer & Elliot 2008: 7; Field 2013: 210).

For every independent variable of X_1, \dots, X_p that is included, a corresponding coefficient of β_1, \dots, β_p is added (Field 2013: 210). While the coefficients of β_1, \dots, β_p are the slopes of different sides of the regression plane, the intercept β_0 further locates the regression plane in space (Field 2013: 210). To conclude, the predicted equation aims to formulate such regression plane that best describes the data set and estimates the value of the outcome.

5.2 Process

In this section, the process for conducting MRA is discussed, including selection of variables and data collection, as well as statistics.

5.2.1 Selection of variables and data collection

To start with the multiple regression process, theoretical understanding and background of the phenomenon is needed to further select independent variables in regard to the dependent variable. After having selected such variables and collected the corresponding data, continuation to further steps in multiple regression analysis process may start.

5.2.2 Statistics

The process includes important statistics that are reported. Such statistics are described in detail below.

Histogram of dependent variable

Histogram of dependent variable indicates whether the dependent variable is normally distributed (Field 2013: 19; Tranmer & Elliot 2008: 40-41). In case of highly non-normal distribution, the dependent variable can be transformed by taking a natural log (LN) (Tranmer & Elliot 2008: 40-41). Such transformation results in a more normal distribution of the dependent variable and enables the utilization of residuals in further steps of the analysis (Tranmer & Elliot 2008: 40-41).

R square

R square as a percentage indicates the amount of variation that the formulated model explains in the outcome, i.e., the dependent variable (Field 2013: 202). In other words, it tells how much the model accounts for the variation in the outcome. It is also used to measure the goodness of fit of the predicted model (Field 2013: 201-202).

F-statistic

F-statistic is another way to measure the goodness of fit of the predicted model, or in other words, the model compared against the error in the model (Field 2013: 202). The reported *f-ratio* of the model indicates how much the model has improved the prediction of the outcome, i.e., the dependent variable compared against the level of inaccuracy in the model (Field 2013: 203). The model is good when f-ratio is large, at least greater than 1 (Field 2013: 204).

Significance

The model and further its independent variables are statistically significant when sig. < 0.05 (Tranmer & Elliot 2008: 24; Field 2013: 208).

Coefficients

Both *unstandardized coefficients* (β) and *standardized coefficients* (beta) are reported. Unstandardized coefficients give the β_0 and β_1, \dots, β_p values for the regression equation (Field 2013: 238; Tranmer & Elliot 2008: 28). They indicate the change in the outcome, i.e., the dependent variable, when there is one unit change in the related independent variable (Field 2013: 204; Field 2013: 239). Standardized coefficients are however easier to interpret in this matter as they are measured with a change in standard deviation instead of a unit change (Field 2013: 239; Tranmer & Elliot 2008: 24). Standardized coefficients indicate the change in the dependent variable, when there is one standard deviation change in the related independent variable (Field 2013: 240). This makes standardized coefficients comparable with each other in contrast to unstandardized coefficients (Field 2013: 239). Standardized coefficients tell the importance, i.e., strength of each associative relationship in regard to the outcome (Field 2013: 241; Tranmer & Elliot 2008: 24). Standardized coefficients are interpreted in this study instead of unstandardized coefficients.

Multicollinearity

Multicollinearity measures inter-correlations between independent variables (Birks & Malhotra 2006: 538). High inter-correlations between two or more independent variables may result in statistical problems and therefore multicollinearity should be avoided (Birks & Malhotra 2006: 538; Field 2013: 220). Multicollinearity is measured by *VIF value* (Field 2013: 224). When VIF is 10 or above, there may be multicollinearity problems (Myers & Myers 1990). The *tolerance statistic* related to VIF value indicates a multicollinearity problem when its value is below 0.2 (Field 2013: 220; Menard 1995).

Residuals

Residuals, i.e., error terms (ε) are the differences between the predicted and observed values of the outcome (Birks & Malhotra 2006: 533; Field 2013: 216). In other words, they indicate the difference between a predicted score of an observation, predicted by the regression equation and an actual score of such observation (Field 2013: 199). The model fits the sample data set well when all residuals are small, and a perfect model for the sample data set would have all its residual values at zero (Field 2013: 216). *Standardized residuals* with Y as ZRESID and X as ZPRED are further recommended to use instead of *unstandardized residuals* (Field 2013: 216; Field 2013: 230). Such standardized residuals are utilized in this study.

Regarding residuals in specific, the following statistics are also reported to measure appropriateness of the regression model and to enable the utilization of residuals in further analyses and methodologies (Birks & Malhotra 2006: 533-534; Tranmer & Elliot 2008: 36-37).

Histogram of residuals

Histogram of residuals enables to examine whether residuals are normally distributed (Birks & Malhotra 2006: 534; Field 2013: 248).

Normal probability-probability plot of residuals

Normal probability-probability plot, i.e., normal p-p plot, with standardized residuals plotted against the expected values from the standard normal distribution, helps to examine whether residuals are normally distributed (Tranmer & Elliot 2008: 37). If residuals are normally distributed, their values should follow the diagonal line of the normal p-p plot (Tranmer & Elliot 2008: 37). The plot further shows if there is deviation from normality and how it might occur (Field 2013: 248). If all points lie on the line, the data set is perfectly normally distributed (Field 2013: 248).

Kolmogorov-Smirnov test and Shapiro-Wilk test

Another way to assess normal distribution of residuals is by the Kolmogorov-Smirnov test and Shapiro-Wilk test (Birks & Malhotra 2006: 534; Field 2013: 144). In such tests, a sig.

of >0.05 indicates that the distribution of the data sample is not significantly different from normal distribution (i.e., it is most likely normal) (Field 2013: 144).

Scatterplot of residuals

A scatterplot, with standardized residuals plotted against standardized predicted values, indicates whether the variance is constant, i.e., whether homoscedasticity assumption is met (Birks & Malhotra 2006: 534; Tranmer & Elliot 2008: 36; Field 2013: 220). The scatterplot further shows if there are unwanted outliers in the data that could affect the results of the regression model (Tranmer & Elliot 2008: 37; Field 2013: 216). The plot should result in a random pattern without regularities, with random array of dots evenly dispersed around zero (Birks & Malhotra 2006: 534; Field 2013: 247). For no outliers, standardized residuals should lie in between -3.29 and 3.29, with less than 1% greater than 2.58 and less than 5% greater than 1.96 (Field 2013: 216). Such assumptions should be met on both x-axis and y-axis (Tranmer & Elliot 2008: 37). Furthermore, such residuals that meet the assumptions represent the actual data well which also enables their use in further analyses and methodologies (Field 2013: 216).

Finally, analysis of the above statistics is conducted, multiple regression equation is created, and the results are interpreted.

6 ANALYSIS 1: MULTIPLE REGRESSION ANALYSIS

In this chapter, the analysis part of MRA is presented and discussed, including selection of variables and data collection, results, and validity and reliability.

6.1 Selection of variables and data collection

After conducting theoretical research on the phenomenon, the following variables are selected for MRA of this study.

Dependent variable

Moomin.com gross sales

Independent variables

GNI per capita

GINI index

inflation

geographic distance

median age

subjective history behind the market success

brick and mortar store(s)

third-party distribution

The objective of MRA in this study is to examine the effect of economic environment, socio-cultural environment, and strategic decisions in general on brand licensor sales revenue. More in detail, MRA examines how much of the variation in Moomin.com sales revenue is explained by the selected independent variables. For such objectives, associative relationships and their strengths between the selected independent variables and the dependent variable of Moomin.com gross sales are studied. Furthermore, a mathematical equation is created to examine the form of such relationships.

Data for multiple regression analysis was collected between the period of 25th of June 2019 and 10th of July 2019. Data was collected from two categorical sources, from Moomin

Characters management and from public online databases. First, strategic data was collected from Moomin Characters management. Moomin.com gross sales of year 2018 defined the market scope for the collection for other pieces of strategic data, including subjective history behind the market success, brick and mortar store(s), and third-party distribution per market. Second, external data was collected from the online databases of The World Bank (2019), Geo Data Source (2019), and Central Intelligence Agency (2019). The same market scope as in strategic data was utilized for the collection of GNI per capita, GINI index, inflation, geographic distance, and median age per market. Table 2 displays information on each piece of data.

TABLE 2. Data collection.

	Type	Environment	Description of data	Year of data	Data collection date	Data Source
Moomin.com gross sales	Dependent	Strategic	€	2018	25.6.2019	Moomin Characters management
GINI per capita	Independent	Economic	PPP, current international \$	2017	8.7.2019	The World Bank. (2019).
GINI index	Independent	Economic	World Bank estimate, 0-100	2017	8.7.2019	The World Bank. (2019).
Inflation	Independent	Economic	Consumer price index, annual %	2017	8.7.2019	The World Bank. (2019).
Geographic distance	Independent	Socio-cultural	Km, between Helsinki and a destination market	2019	10.7.2019	Geo Data Source. (2019).
Median age	Independent	Socio-cultural	Years	2017	8.7.2019	Central Intelligence Agency. (2019).
Subjective history behind the market success	Independent	Strategic	1=Yes, 0=No	2019	25.6.2019	Moomin Characters management
Brick and mortar store(s)	Independent	Strategic	1=Yes, 0=No	2019	25.6.2019	Moomin Characters management
Third-party distribution	Independent	Strategic	1=Yes, 0=No	2019	25.6.2019	Moomin Characters management

6.2 Results

IBM SPSS Statistics is utilized to conduct multiple regression analysis and to generate the statistics. Table 3 includes descriptive statistics of the collected data for MRA.

Furthermore, appendix 1 includes Pearson correlations.

TABLE 3. Descriptive statistics.

	Mean	Standard deviation	N
Log of Moomin.com gross sales	7.1234	2.33720	79
GNI per capita	38869.5522	24106.5699	67
GINI index	34.3383	6.67495	60
Inflation	2.4896	2.36679	68
Geographic distance	4257.7849	3843.97938	79
Median age	38.0679	5.90897	78
Subjective history behind the market success	0.15	0.361	79
Brick and mortar store(s)	0.09	0.286	79
Third-party distribution	0.33	0.473	79

All 79 markets of log of Moomin.com gross sales (of year 2018) are included in the analysis (n=79). In case of missing data on some specific market, the population of the related independent variable is decreased. As it may be noted from table 3, eventually, log of Moomin.com gross sales are applied in MRA instead of the planned Moomin.com gross sales. Reasoning behind this is discussed below.

The process starts with examining normal distribution with a *histogram of dependent variable*. Due to including sensitive data to Moomin Characters' business, the histogram is not displayed as a such. However, the histogram showed that the dependent variable of Moomin.com gross sales is not normally distributed. The distribution is skewed as most of the markets yield marginal sales while few markets yield the highest gross sales. This indicates that while Moomin.com gross sales include in total 79 markets in 2018, only few of these can be considered major markets. As the distribution of the dependent variable is non-normal, a natural log (LN) of the variable is further taken. Figure 2 displays the distribution of data after such transformation.

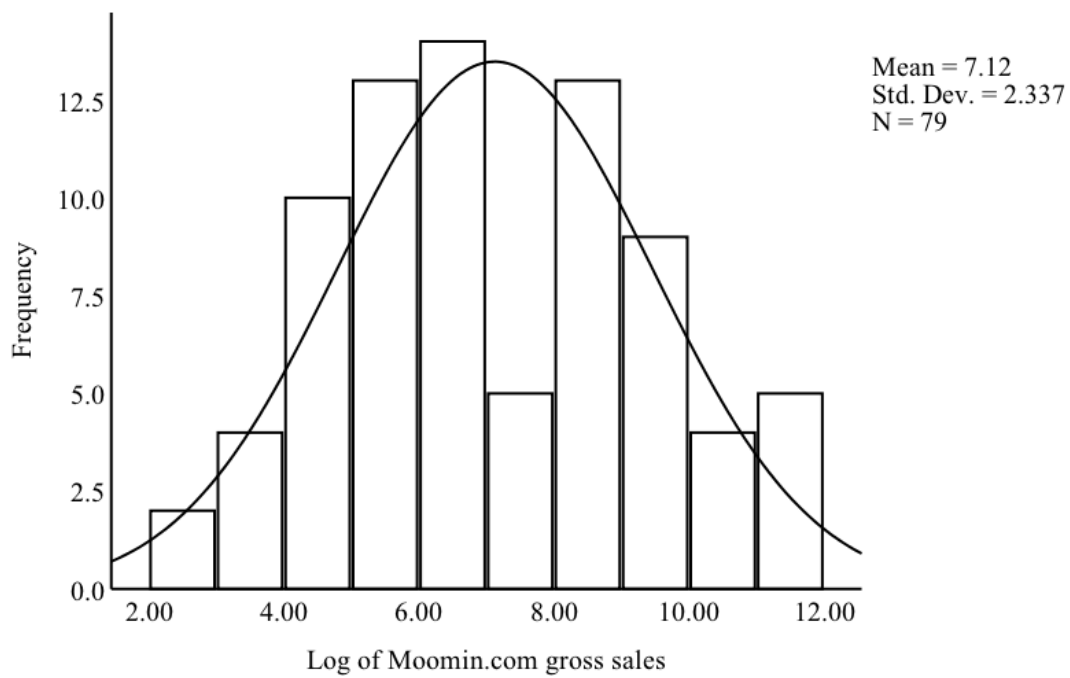


FIGURE 2. Histogram of log of dependent variable, log of Moomin.com gross sales.

As the new histogram of dependent variable indicates, the dependent variable is much closer to normal distribution after its transformation to natural log (LN). As a result, the log of Moomin.com gross sales are eventually utilized as the dependent variable in MRA, instead of Moomin.com gross sales. Therefore, the following change is executed.

Dependent variable

Moomin.com gross sales

log of Moomin.com gross sales

Table 4 includes the statistics of *R square*.

TABLE 4. Model summary.

R	R square	Adjusted R square	Standard error of the estimate
0.827	0.683	0.632	1.41817

As a whole, the model explains 68.3% of the variation in the dependent variable of log of Moomin.com gross sales, according to r square. In other words, 68.3% of the variation in log of Moomin.com gross sales can be explained by this model. Therefore, the goodness of fit of the model is of high quality and the selection of variables has been successful.

Furthermore, some other unknown variables have an influence on log of Moomin.com gross sales as well, and such variables account for the remaining 31.7% of the variation. The second analysis of this study, fsQCA, examines further whether national culture is one of such variables. FsQCA is discussed as a methodology in chapter 7 and the analysis is described further in chapter 8.

Table 5 includes the statistics of *f*-statistic and *significance*.

TABLE 5. ANOVA table.

	Sum of squares	df	Mean square	F	Sig.
Regression	212.813	8	26.602	13.227	0.000
Residual	98.549	49	2.011		
Total	311.362	57			

The model is good according to f statistic (13.227). The f-ratio is large, and far above 1. Furthermore, the model as a whole is statistically significant fit to the data, as sig. < 0.05. In this model, sig. < 0.001. As a result, the multiple regression model overall predicts log of Moomin.com gross sales really well.

Table 6 includes further the statistics of *coefficients* and *multicollinearity*.

TABLE 6. Coefficient table.

	Unstandardized coefficients		Standardized coefficients		Sig.	Collinearity statistics	
	B	Standard error	Beta	t		Tolerance	VIF
(Constant)	0.748	2.596		0.288	0.775		
GINI per capita	3.088E-5	0.000	0.319	3.290	0.002	0.689	1.451
GINI index	0.032	0.045	0.092	0.710	0.481	0.388	2.578
Inflation	0.020	0.091	0.020	0.221	0.826	0.759	1.317
Geographic distance	-2.038E-5	0.000	-0.034	-0.280	0.780	0.452	2.214
Median age	0.081	0.040	0.205	2.028	0.048	0.632	1.581
Subjective history behind the market success	1.454	0.707	0.225	2.056	0.045	0.541	1.849
Brick and mortar store(s)	0.354	0.760	0.043	0.465	0.644	0.746	1.341
Third-party distribution	2.348	0.504	0.475	4.661	0.000	0.622	1.608

With a significance level of sig. < 0.05, the four independent variables of GNI per capita, median age, subjective history behind the market success, and third-party distribution explain a statistically significant variation in the dependent variable of log of Moomin.com gross sales. Therefore, these four variables have an associative relationship with log of Moomin.com gross sales. On the other hand, the variables of GINI index, inflation, geographic distance, and brick and mortar store(s) are not significant (sig. > 0.05) and therefore they do not have an associative relationship in regard to log of Moomin.com gross sales.

When it comes to the importance or strengths of the four significant relationships, third-party distribution explains most of the variation in log of Moomin.com gross sales, as its standardized coefficient (*beta*) is the largest of the four (0.475). Therefore, one standard deviation change in third-party distribution results in a 0.475 standard deviation change in log of Moomin.com gross sales. Furthermore, the strengths of the other three significant relationships are the following. GNI per capita 0.319, subjective history behind the market 0.225, and median age 0.205. As a result, the mentioned four independent variables affect the variation in log of Moomin.com gross sales, with third-party distribution affecting it the most and median age the least. Furthermore, it can be concluded that the effect of all of these four variables is positive. Therefore, when one of these four independent variables increases, log of Moomin.com gross sales increases as well. Furthermore, markets with a greater value in each of these four independent values tend to be associated with greater Moomin.com gross sales. Moreover, the multicollinearity statistics of VIF value and tolerance indicate that there are no inter-correlations between the selected independent variables. VIF values are less than 10 and the tolerance statistics related to VIF are below 0.2.

As mentioned, unstandardized coefficients (β) provide β_0 and β_1, \dots, β_p values for the regression equation (Field 2013: 238). Therefore, the multiple regression equation (Birks & Malhotra 2006: 529; Tranmer & Elliot 2008: 7; Field 2013: 210) for the log of Moomin.com gross sales is as follows.

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_p X_{pi} + \varepsilon_i$$

Log of Moomin.com gross sales = $0.748 + (0.00003088 * \text{GNI per capita}) + (0.081 * \text{median age}) + (1.454 * \text{subjective history behind the market success}) + (2.348 * \text{third-party distribution}) + \varepsilon$

where

$\beta_0 = 0.748$, when $X_1, \dots, X_4 = 0$

$\beta_1 = 0.00003088$, with standard error of 0.000

$\beta_2 = 0.081$, with standard error of 0.040

$\beta_3 = 1.454$, with standard error of 0.707

$\beta_4 = 2.348$, with standard error of 0.504

Furthermore, the log of Moomin.com gross sales values are transformed to *standardized residuals* to both measure the appropriateness of the regression model and to further utilize the generated residuals in the second methodology of the study, fsQCA. Standardized residuals with Y as ZRESID and X as ZPRED are utilized and further assessed with the statistics below. To examine normal distribution of the generated residuals, *histogram of residuals*, *normal probability-probability plot of residuals*, *Kolmogorov-Smirnov test* and *Shapiro-Wilk tests*, and *scatterplot of residuals* are generated. Figure 3 displays the *histogram of residuals*.

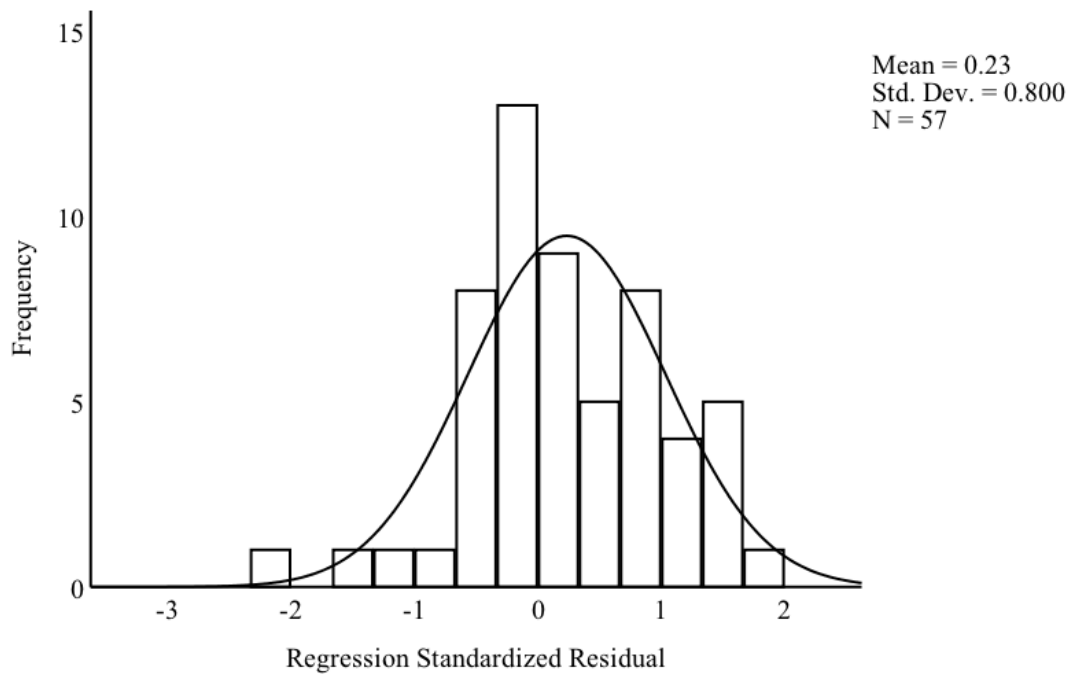


FIGURE 3. Histogram of residuals.

The histogram of residuals indicates that standardized residuals are decently normally distributed, although not perfectly normally distributed. Figure 4 displays further the *normal probability-probability plot of residuals*.

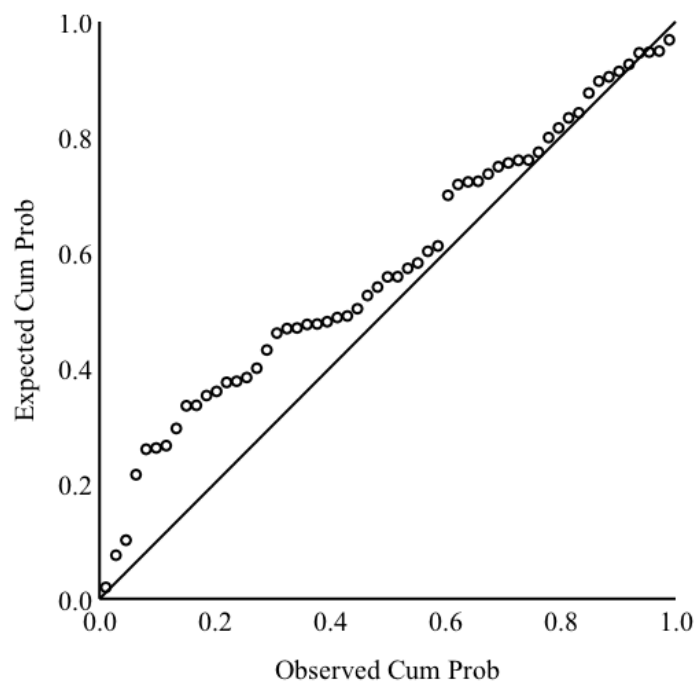


FIGURE 4. Normal probability-probability plot of residuals.

The normal probability-probability plot of residuals shows a little deviation as well, as the residual plots do not perfectly follow the diagonal line. Even though data is not perfectly normally distributed, the plot indicates rather decent normal distribution than clear non-normal distribution. To further examine the normality of residuals, the normality tests of *Kolmogorov-Smirnov* and *Shapiro-Wilk* are conducted. Such statistics are displayed in table 7.

TABLE 7. Tests of normality.

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized residual	0.075	57	0.200	0.979	57	0.416

Both Kolmogorov-Smirnov and Shapiro-Wilk tests have sig. > 0.05. Such significance in these tests means that the data sample is not significantly different from normal distribution, i.e., it is more likely to be normally distributed. As a result, even though figure 3 and figure 4 indicate decent normal distribution with some deviation, Kolmogorov-Smirnov and Shapiro-Wilk test support the normality of residuals. Figure 5 includes further the *scatterplot of residuals* to examine outliers.

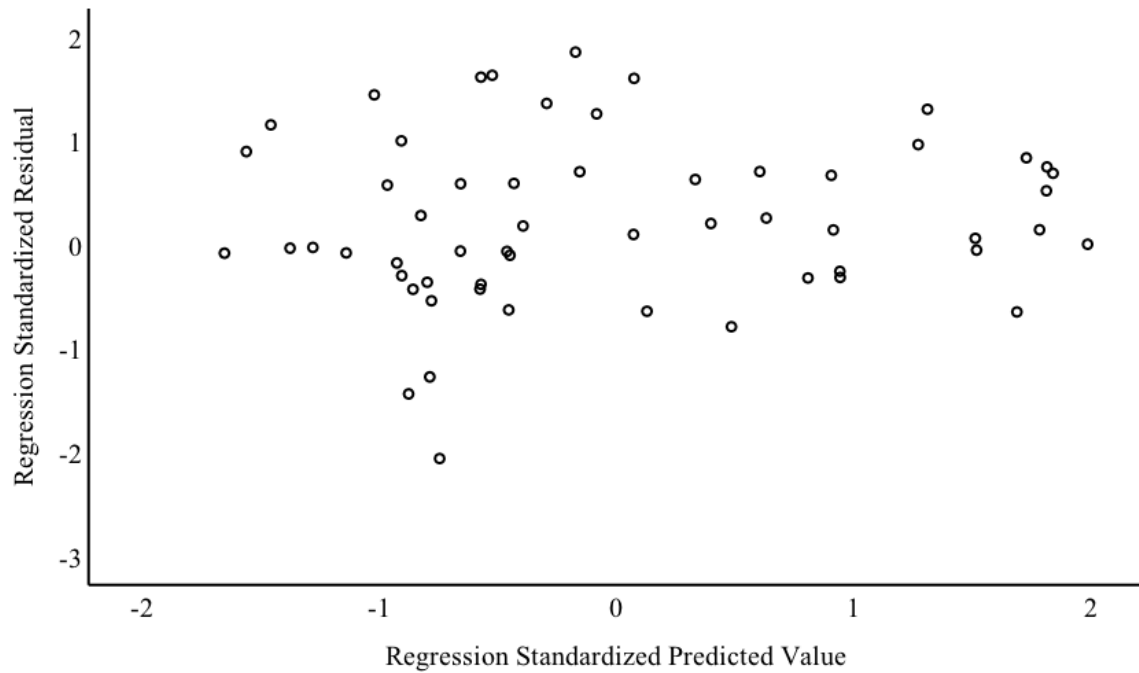


FIGURE 5. Scatterplot of residuals.

The scatterplot of residuals shows that there are no outliers, i.e., no residual points outside of the interval of -3.29 and 3.29 in either x-axis or y-axis of the scatterplot. There are also no residuals greater than 2.58 in either of the axes. Furthermore, the minimum value is -0.79 and maximum value is 1.86. Therefore, 0% of the residuals are greater than 2.58 and 0% are greater than 1.96. As a result, there are no outliers in data. When it comes to the form, it is decently heteroscedastic. When the standardized predicted value increases the variability of standardized residuals narrows. Also, a rather random array of dots is formed, without certain dots forming distinct patterns. The residual points are rather evenly dispersed around zero, with some majority on the positive side of the y-axis. Findings of the scatterplot of residuals support also the normality of residuals. To conclude, the residuals are accepted for further utilization in fsQCA analysis.

To conclude, the results of MRA indicate that economic environment, socio-cultural environment, and strategic decisions have an effect on brand licensor sales revenue. In specific, overall the model explains 68.3% of the variation in Moomin.com sales revenue. Other unknown variables have an influence on Moomin.com sales revenue that account for the remaining 31.7% of the variation. The independent variables of GNI per capita, median age, subjective history behind the market success, and third-party distribution have a

positive associative relationship with Moomin.com sales revenue. Regarding the strength of each relationship, third-party distribution has the largest effect size, GNI per capita the second largest, subjective history behind the market success the third largest, and median age the smallest of the four. GINI index, inflation, geographic distance, and brick and mortar store(s) do not have an associative relationship in regard to Moomin.com sales revenue. Furthermore, a mathematical equation is created and standardized residuals are accepted for further utilization in fsQCA analysis.

6.3 Validity and reliability

Certain aspects should be taken into account regarding validity and reliability of the results. Matters that increase validity and reliability of the results of MRA are the following. The variables are selected based on theoretical research and the analysis was extensively conducted with several statistics, tables and graphs. When it comes to normality of the dependent variable of Moomin.com gross sales, it is improved by taking natural log (LN). The goodness of fit of the model is of high quality, according to adjusted r square and f statistic. The model is also highly significant, with sig. < 0.001. Furthermore, there are no multicollinearity problems. Regarding standardized residuals, acceptable normality of residuals is reached. Especially Kolmogorov-Smirnov and Shapiro-Wilk tests as well as the scatterplot of residuals support the normality of residuals.

Matters that may decrease the validity and reliability of the results of MRA are the following. Only Moomin.com gross sales from the time period of 1.1.2018-31.12.2018 are included to the analysis. No brick and mortar store sales data is included. There is initially skewness related to normality of the dependent variable of Moomin.com gross sales. When it comes to normality of standardized residuals, histogram of residuals and normal probability-probability plot show some deviation.

7 METHODOLOGY 2: FUZZY-SET QUALITATIVE COMPARATIVE ANALYSIS

In this chapter, fuzzy-set qualitative comparative analysis (fsQCA) as a methodology is discussed, including its key characteristics and process.

7.1. Key Characteristics

In 1987 Charles Ragin brought set-theory as a methodology and approach to social sciences and introduced a specific method of qualitative comparative analysis (QCA) (Ragin 1987). In 2000 Ragin further expanded QCA and its crisp set logic (csQCA) and introduced fuzzy-set qualitative comparative analysis (fsQCA) (Ragin 2000). The expanded fsQCA method allows to analyze not only crisp conditions, i.e., conditions that are defined with Boolean algebra as 0 or 1, but also fuzzy conditions that take values on the whole interval of 0 to 1 (Rihoux 2006). The general goal of both QCA and fsQCA is to find causal patterns in regard to a given outcome, displayed by cases that are included to the analysis (Schneider & Wagemann 2010a).

The introduction of fuzzy sets initiated highly increased attention as a novel QCA research method and by now it has become established among research in several fields (Vis 2012). In business, fsQCA has been applied in various organizational research and the number of such research keeps on growing (Vassinen 2012: 65). There is no surprise that the methodology attracts business researchers. According to Fiss (2009), the approach is “*one of the most attractive research strategies for understanding life in and around organizations*”. It has been applied in such business contexts as business decision-making, economic performance, foreign direct investment, new service development, competitive advantage, market orientation, entrepreneurship, innovation, consumption values, and customer satisfaction (Kent & Argouslidis 2005; Vis et al. 2007; Pajunen 2008; Ordanini & Maglio 2009; Järvinen et al. 2009; Frösén et al. 2016; Lisboa et al. 2016; Crespo & Crespo 2016; Kraus et al. 2018; Gonçalves et al. 2016; Miranda et al. 2018).

In this study, fsQCA terminology is used according to present academic recommendations (Schneider & Wagemann 2010b). The term “*condition*” is used instead of “*independent*”

variable”, the phenomenon to be explained is called “*outcome*” instead of “*dependent variable*” and the results of fsQCA are called “*solution formula*” instead of “*equation*”. In addition, a combination of conditions is referred also as “*configuration*” and “*path*”. Next, the key characteristics of fsQCA are discussed. Such include holistic approach, population size, complex configurational causality, as well as crisp sets and fuzzy sets.

7.1.1 Holistic approach

FsQCA is a holistic approach as it includes qualities from both qualitative and quantitative methods. According to Ragin (1987: 84), QCA methods integrate the best features of case-oriented approaches, i.e., qualitative methods and variable-oriented approaches, i.e., quantitative methods. Therefore, compared to other methods that are mainly either qualitative or quantitative, fsQCA is in fact a combination of the two (Berg-Schlosser et al. 2009b: 6). FsQCA is a holistic approach also regarding its cases. Each individual case included to the analysis is considered as a complex entity (Rihoux 2006). First, each case is comprehended individually, throughout the course of the whole analysis (Rihoux 2006). Second, each case is perceived as a complex configuration, or in other words, a combination of different conditions (Schneider & Wagemann 2010a; Berg-Schlosser et al. 2009b: 6).

7.1.2 Population size

FsQCA enables a population size on the whole scale, from small to large (Rihoux 2006; Schneider & Wagemann 2010a; Berg-Schlosser et al. 2009a; Schneider & Wagemann 2007: 271; Wagemann 2008; Vassinen 2012: 42). While the initial QCA method is often referred to as a small-N method, its fuzzy variant of fsQCA enables an increase in population size (De Meur et al. 2002; Rihoux 2006). Due to the possibility of population increase, fsQCA has been seen as a challenger to traditional correlational quantitative methods (Rihoux 2006). However, compared to pure statistical methods, generalizations in fsQCA are often modest and rather case-focused (Berg-Schlosser & De Meur 2009b: 12).

7.1.3 Complex configurational causality

As mentioned, the goal of QCA methods is to find causal patterns in regard to the given outcome (Schneider & Wagemann 2010a). Indeed, QCA methods develop a conception of complex configurational causality (Ragin 1987). Complex configurational causality means that (1) usually, a combination of conditions produces an outcome, (2) various different combinations of conditions can produce the same outcome, and (3) in a different context, a given condition may however have a different effect on the outcome (Rihoux 2006). Therefore, QCA methods differ from pure quantitative methods by offering multiple causal models that lead to a given outcome instead of specifying one causal model for a phenomenon (Ragin 1987; Schneider & Wagemann 2010a). Such causal paths in QCA methods are constructed of single conditions or of combinations of conditions (De Meur et al. 2002; Ragin 2008: 124; Vassinen 2012: 46).

7.1.4 Crisp sets and fuzzy sets

FsQCA uses both crisp sets that were presented by Ragin in 1987 and fuzzy sets that were presented by Ragin in 2000. Crisp sets view membership functions with Boolean algebra's binary values (values of either 0 or 1) and fuzzy sets with fuzzy algebra's degrees of membership (any value on the interval of 0 and 1) (Vassinen 2012: 242).

Crisp sets capture diversity, or variation, of qualitative *diversity of kind* which refers to categorical differences (Ragin 2000: 149-150). In crisp sets, each case included in the analysis is displayed as a combination of conditions with purely 0 or 1 values, with an outcome of 0 or 1 values (Rihoux 2006). The value of 0 means full non-membership, i.e., "*false*" while the value of 1 stands for full membership, i.e., "*true*" (Ragin 2009: 29; Vassinen 2012: 54). For example, "*apple*" is a member in the set of "*fruits*" whereas "*Wednesday*" does not belong to such categorical set. "*apple*" would therefore have a value of 1 with an outcome value of 1 whereas "*Wednesday*" would have a value of 0 with an outcome value of 0.

Fuzzy sets are further able to capture both qualitative diversity of kind and quantitative differences in degree of membership (Ragin 2000: 149-150; Vassinen 2012: 54).

Differences in degree of membership refer to quantitative categorical distinctions within a certain category (Ragin 2000: 149-150). In fuzzy sets, combinations of conditions are viewed as fuzzy degrees of membership on the whole interval of 0 and 1, related to an

outcome of either 0 or 1 (Vassinen 2012: 242; Rihoux 2006). The fuzzy membership degree of 0.5 is further viewed as an important cross-over point, as it is the border between a membership and a non-membership in regard to the outcome (Ragin 2008: 30; Vassinen 2012: 55). For example, if the outcome is “*small-sized fruits*”, “*apple*” and “*kiwi*” would have degrees of membership between the interval of 0 and 1 and would either belong to the outcome of “*small-sized fruits*” or not, depending on the definition of what is regarded a small fruit. Belonging to the outcome set would mean having an outcome value of 1 while not belonging to “*small-sized fruits*” would mean having an outcome value of 0. Table 8 further displays crisp sets and different fuzzy sets.

TABLE 8. Crisp sets and fuzzy sets (Ragin 2008: 31).

Crisp set	Three-value fuzzy set	Four-value fuzzy set	Six-value fuzzy set	"Continuous" fuzzy set
1 = fully in 0 = fully out	1 = fully in 0.5 = neither fully in nor fully out 0 = fully out	1 = fully in 0.67 = more in than out 0.33 = more out than in 0 = fully out	1 = fully in 0.9 = mostly in but not fully in 0.6 = more or less in 0.4 = more or less out 0.1 = mostly out but not fully out 0 = fully out	1 = fully in Degree of membership is more "in" than "out": $0.5 < X_i < 1$ 0.5 = cross-over: neither in nor out Degree of membership is more "out" than "in": $0 < X_i < 0.5$ 0 = fully out

Table 8 indicates as discussed that compared to crisp sets, fuzzy sets enable to see differences in degrees of membership. The precision of such differences depends on how many values the fuzzy set includes or whether it is a continuous set. In this study, only continuous fuzzy sets are utilized.

7.2 Process

In this section, the process for conducting fsQCA is discussed, including selection of conditions and data collection, fuzzy set calibration of conditions, and truth table.

7.2.1 Selection of conditions and data collection

To start with the fsQCA process, theoretical understanding and background is needed to select conditions and the outcome within the focus phenomenon (Vassinen 2012: 44). After having gained theoretical knowledge about such phenomenon, selected the cases and conditions in regard to the outcome, and collected the corresponding data, continuation to further steps in the fsQCA process may start.

7.2.2 Fuzzy set calibration of conditions

Calibration in fsQCA can be done by either an indirect method or a direct method (Schneider & Wagemann 2010a; Vassinen 2012: 59-60; Ragin 2008: 85). Both methods include qualitative and quantitative processing of the collected data which allows to maintain a qualitative theory-grounded perspective and a quantitative perspective (Schneider & Wagemann 2010a). The indirect method relates to qualitatively defined thresholds, Stata syntax, and the researcher's qualitative assessment to determine which cases on the interval scale are members of the set (Ragin 2008: 85; Ragin 2008: 96; Vassinen 2012: 60). The direct method, on the other hand, relates to specifying qualitative labels to breakpoints that structure further the fuzzy set to full membership (1), full non-membership (0), and the crossover point (0.5) (Schneider & Wagemann 2010a; Vassinen 2012: 60; Ragin 2008: 85). The end product of both methods is a calibration of degrees of membership of cases in sets, ranging from 0 to 1 (Ragin 2008: 85). In this research, the direct method is used.

In direct method, the researcher first specifies the collected data set's interval scale and qualitative verbal labels that correspond to the fuzzy set break points of 1, 0.5, and 0. (Schneider & Wagemann 2010a; Vassinen 2012: 60; Ragin 2008: 85). Then, fuzzy set degrees of membership are assigned to data, by using quantitative functions and calculations (Schneider & Wagemann 2010a). Such step further converts the collected data to fuzzy scores on the interval scale of 0 and 1 (Schneider & Wagemann 2010a).

Quantitative calculations of direct method are automatically done in fsQCA software. The following equation is used to calculate degrees of membership.

$$\text{Degree of membership} = e_p / (1 + e_p)$$

Where P is the product log odds and e is a mathematical constant (Ragin 2008: 90-91; Vassinen 2012: 62).

7.2.3 Truth table

After calibration, initial and minimized truth tables are created. Truth table is a key tool in fsQCA to collect and analyze all possible causal paths (i.e., combinations of conditions) that lead to the given outcome, by fitting them into rows (Ragin 1987; Ragin 2000; Ragin 2008: 124; Vassinen 2012: 62). The goal of a truth table is indeed to identify and display explicitly the connections between combinations of conditions and the given outcome (Ragin 2008: 125). An initial and minimized truth table are created for both, the *outcome* and the *negated outcome*.

Each row in the initial truth table represents a different combination of causal conditions (Ragin 2008: 124). The number of different combinations of conditions, i.e., the number of rows in the initial truth table, may further be calculated as follows (Ragin 2008: 125).

$$\text{Number of combinations} = 2^k$$

Where k is the number of individual causal conditions (Ragin 2008: 125). The minimization process of an initial truth table is described in a further part of this subsection.

Consistency and coverage

Some of the important developments of the fsQCA method, included in both initial and minimized truth tables, are consistency and coverage measures (Ragin 2006; Goertz 2006; Schneider & Wagemann 2007: 86). They enable information on empirical support and relevance related to the provided overall solution and to its each configuration.

Consistency, like significance, measures the degree of empirical support of the overall solution and of each of its configurations (Ragin 2008: 45). Consistency scores should be as close to 1.0 (perfect consistency) as possible whereas consistency scores that are below 0.75 should be avoided (Ragin 2008: 46). The default consistency threshold in fsQCA software is 0.8. Naturally, a low consistency score indicates that there is no strong empirical evidence for the provided solution and its causal paths, related to the given outcome. Consistency calculation is automatically done in fsQCA software. The equation for calculating consistency of a certain condition X as a subset of the outcome Y , with both crisp sets and fuzzy sets, is as follows (Ragin 2006; Ragin 2008: 52).

$$\text{Consistency } (X_i \leq Y_i) = \sum [\min (X_i, Y_i)] / \sum (X_i)$$

Where the sum of the minimums of condition X_i values and the minimums of the corresponding minimum outcome Y_i values are divided by the sum of all values of the condition X_i . If all values of X_i are less or equal to the corresponding Y_i values, the consistency score is 1.0 which means full consistency. A smaller consistency value means that some of the X_i values are greater than the corresponding Y_i values. On the other hand, it takes only some X_i values to exceed greatly the corresponding Y_i values for the consistency score to drop below 0.5. (Ragin 2006; Ragin 2008: 52.)

Coverage, like strength, measures empirical relevance or importance of the overall solution and of each of its configurations (Ragin 2008: 45; Ragin 2006). There are in total three different coverage measures, one for measuring the overall solution coverage and two for measuring each configuration's coverage. *Solution coverage* measures the overall solution coverage and it is the proportion of the total population of cases that the overall solution covers (Vassinen 2012: 65). Furthermore, as the given outcome may result from several different configurations, each configuration's relevance is measured individually. *Raw coverage* is the proportion of the given outcome explained by that configuration, but which may also be explained by a related combination (Vassinen 2012: 65). *Unique coverage* is the proportion of the cases that lead to the given outcome, only explained by that configuration in specific (Vassinen 2012: 65). If there are many configurations that explain the given outcome, the coverages of single configurations may be low (Ragin 2008: 44; Ragin 2006). As the number of provided configurations vary depending on the case, appropriate coverage levels for each configuration may be evaluated case-specifically

(Schneider & Wagemann 2010b). Coverage calculations are also automatically done in fsQCA software. The general equation is as follows (Ragin 2006; Ragin 2008: 57).

$$\text{Coverage } (X_i \leq Y_i) = \sum [\min (X_i, Y_i)] / \sum (Y_i)$$

It is similar to that of consistency with only the difference in the denominator. In coverage, the denominator contains Y_i whereas in consistency it contains X_i .

Furthermore, coverage should be always calculated after consistency. It is pointless to evaluate coverage levels if the outcome and its configurations are not empirically supported (Ragin 2009: 55). In addition, it is rather usual that there is a trade-off between consistency and coverage measures (Ragin 2008: 55). Still, a combination that is low in coverage but high in consistency may still indicate important theoretical contribution (Vassinen 2012: 64).

Sufficiency and necessity

To demonstrate causality, there is a need to find out which combinations of conditions and individual conditions result in the outcome. Sufficiency and necessity aim to further explain the nature of both combinations of conditions and individual conditions in regard to the outcome (Vassinen 2012: 49; Ragin 2008; Rihoux & Ragin 2009; Schneider & Wagemann 2010a). As a result, sufficiency and necessity are examined both on a configurational level and on a condition level. Both of these measures are applied to each configuration and condition by examining the contents of truth tables.

Sufficiency relates to all combinations of conditions and individual conditions that simply lead to the given outcome (Ragin 2008; Rihoux & Ragin 2009; Vassinen 2012: 49). Such configurations create one row to the truth table. Necessity, on the other hand, applies when a certain combination of conditions or an individual condition is always present for the given outcome to occur (Ragin 2008; Rihoux & Ragin 2009). Therefore, in case of necessity, all paths that lead to the given outcome need to consist of such necessary element, i.e., a necessary combination of conditions or a necessary individual condition. Each row in the truth table would therefore include certain similarities.

To understand sufficiency and necessity in practice, Vassinen (2012: 50) demonstrates simple examples that are displayed below. A, B and C represent conditions and O is the given outcome. Logical operators such as set intersection (i.e., logical *and*, presented in calculations with a star ‘*’), set union (i.e., logical *or*, presented in calculations with a plus ‘+’) and set *negation* (i.e., absence, presented in calculations with a tilde ‘~’) are used in QCA to combine conditions, i.e., to create configurations (Ragin 2008: 36-37; Ragin 2008: 154).

$$A * B \rightarrow O$$

$$A * C \rightarrow O$$

The first path, i.e., configuration that results in the outcome O is a combination of conditions A and B. The second path is a combination of conditions A and C. On a configurational level, both configurations lead to the given outcome O and are therefore sufficient. No configuration is necessary as no specific combination of conditions is needed or always present for the outcome O to occur. Indeed, two differently constructed combinations lead to the outcome O. On a condition level, no condition on its own is sufficient for outcome O. All conditions A, B, and C need to be combined with another condition to bring about outcome O. No condition leads to the outcome on its own. However, condition A is present in both configurations that lead to the outcome O. Therefore, condition A is a necessary condition for the outcome O.

An expanded example presented below observes more complex combinations of conditions, also presented by Vassinen (2012: 50). Again, A, B, and C are conditions in regard to the outcome O.

$$A * B \rightarrow O$$

$$\sim A * C \rightarrow O$$

$$A * C \rightarrow \sim O$$

The first path is similar to the prior example, with a combination of A and B leading to the outcome O. The second path leading to the outcome O includes the absence of A combined with C. Finally, the third path consists of A and C that lead to a negated outcome, i.e., to a contrary outcome to the outcome O. On a configurational level, the first and second paths

lead to the outcome O and are sufficient combinations of conditions. Either one of these two paths are necessary as both paths are differently structured and not present in the other path leading to the outcome O. When it comes to the third path, it is the only path leading to a negated outcome. Therefore, it is regarded both sufficient and necessary for the negated outcome $\sim O$. On a condition level, no condition is sufficient. Again, no individual condition leads to the outcome O but needs to be combined with another condition. No condition is necessary either as no specific condition is always present in the two paths that lead to the outcome O. Regarding the third path, no condition is sufficient. However, as there is only one configuration that leads to the negated outcome, conditions A and C are regarded as necessary conditions for $\sim O$ to occur.

Minimization and analysis

The initial truth table for the outcome and such for the negated outcome should be minimized according to consistency and frequency threshold to establish a final truth table and to conduct further analysis of the results. Rows with configurations that do not meet the set consistency thresholds are eliminated, so that the minimized truth table only consist of combinations that meet consistency criteria (Vassinen 2012: 65). A frequency threshold is applied to eliminate further irrelevant rows, based on the frequency of each configuration (Ragin 2017). For relatively small N sizes, a frequency threshold of 1 or 2 is recommended (Ragin 2017). The default frequency threshold in fsQCA software is 1.

After these two eliminations, a minimized and a final truth table are established and the fsQCA software presents its findings with final solution formulae. Each solution formula, constructed of logical operators (i.e., logical *and* ‘*’, logical *or* ‘+’, and set *negation* ‘ \sim ’), is further analyzed. Consistency and coverage measures as well as sufficiency and necessity are assessed to interpret the solution of each formula.

8 ANALYSIS 2: FUZZY-SET QUALITATIVE COMPARATIVE ANALYSIS

In this chapter, the analysis part of fsQCA is presented and discussed, including selection of conditions and data collection, fuzzy set calibration of conditions, truth table, results, and validity and reliability.

8.1 Selection of conditions and data collection

After having conducted theoretical research, the following conditions and outcome are selected for fsQCA of this study.

Outcome

standardized residuals of log of Moomin.com gross sales

Conditions

power distance

individualism – collectivism

masculinity – femininity

uncertainty avoidance

The objective of fsQCA is to examine how culture affects brand licensor sales revenue by studying whether there are cultural configurations that lead to outperforming brand licensor sales revenue i.e., to brand licensor sales revenue that exceeds expectations and whether there are cultural configurations that lead to underperforming brand licensor sales revenue i.e., to brand licensor sales revenue that falls behind expectations. Discussion on whether culture contributes to explaining some of the 31.7% of the remaining variation in MRA is also conducted. For such objectives, causal configurational paths that are composed of the four traditional Hofstede's cultural dimensions and analysis on whether they lead to either outperforming Moomin.com sales revenue or to underperforming Moomin.com sales revenue is studied. A positive value in standardized residuals of log of Moomin.com gross sales indicates outperforming Moomin.com sales revenue whereas a negative value indicates underperforming Moomin.com sales revenue.

Data for the fsQCA analysis was collected between the period of 27th of June 2019 and 15th of August 2019. Data was collected from three categorical sources, from the conducted MRA of this study, Hofstede (2015), and Moomin Characters management. First, strategic additional data, including subjective perception on Moomin.com markets' performance, was collected from Moomin Characters management. Second, socio-cultural Hofstede's cultural dimensions data was collected from the public database of Hofstede (2015). Third, after conducting MRA of this study, standardized residuals of log of Moomin.com gross sales were collected. Table 9 displays information on each piece of data.

TABLE 9. Data collection.

	Abbreviation	Type	Environment	Calibration method	Type of set	Distribution
Standardized residuals of log of Moomin.com gross sales	Zre	Outcome	Strategic	Direct method	Fuzzy	Continuous
Power distance	Pdi	Condition	Socio-cultural	Direct method	Fuzzy	Continuous
Individualism - Collectivism	Idv	Condition	Socio-cultural	Direct method	Fuzzy	Continuous
Masculinity - Femininity	Mas	Condition	Socio-cultural	Direct method	Fuzzy	Continuous
Uncertainty avoidance	Uai	Condition	Socio-cultural	Direct method	Fuzzy	Continuous
Subjective perception on Moomin.com markets' performance	n/a	Additional information	Strategic	n/a	n/a	n/a

	Description of data	Year of data	Data collection date	Data Source
Standardized residuals of log of Moomin.com gross sales	-0.79-1.86	2018	15.8.2019	MRA of this study
Power distance	0-100	2015	8.7.2019	Hofstede. (2015).
Individualism - Collectivism	0-100	2015	8.7.2019	Hofstede. (2015).
Masculinity - Femininity	0-100	2015	8.7.2019	Hofstede. (2015).
Uncertainty avoidance	0-100	2015	8.7.2019	Hofstede. (2015).
	1=Highly successful, 2=Successful, 3=Unsuccessful, 4=Highly unsuccessful			
Subjective perception on Moomin.com markets' performance		2019	27.6.2019	Moomin Characters management

The displayed abbreviations of the four conditions and the outcome are utilized in the following sections. Furthermore, the nature of the collected data for direct calibration is fuzzy and continuous.

8.2 Fuzzy set calibration of conditions

Direct calibration and further parts of fsQCA analysis are conducted within fsQCA software. Fuzzy set calibration of conditions is done based on both theoretical understanding and nature of the collected data. Table 10 below indicates descriptive statistics of all conditions to be calibrated in fsQCA. Furthermore, appendix 2 includes Pearson correlations.

TABLE 10. Descriptive statistics, uncalibrated values.

	Mean	Median	Standard deviation	Minimum	Maximum	N
Zre	0.37949	0.23253	0.71316	-0.78904	1.85804	46
Pdi	56.98	58.50	22.711	11	100	46
Idv	51.24	54.50	21.822	14	91	46
Mas	48.70	48.00	21.844	5	100	46
Uai	67.15	70.00	22.205	23	100	46

The population size of fsQCA is 46. Out of the total 79 markets of log of Moomin.com gross sales that were already included in MRA, 22 markets didn't receive a standardized residual. This is due to such markets' missing data related to one or many independent variables which further lead to a null residual. Therefore, a total of 57 markets are further possible to include in fsQCA analysis. As 11 out of these 57 markets don't have available Hofstede data, the final number of markets for the fsQCA analysis is 46 (n= 46). This population size is well aligned with theory, as most QCA applications include usually around 10-50 cases (Vassinen 2012: 44). Next, more detailed information related to the direct fuzzy set calibration of the outcome and of each condition are presented. Both theoretical perspective and statistical distribution of data is taken into account in the selection of thresholds for membership values.

Standardized residuals of log of Moomin.com gross sales

For the outcome of standardized residuals of log of Moomin.com gross sales, the value of 2 is selected for calibration of full membership (1), the value of 1 for cross-over point (0.5), and the value of 0 for full non-membership (0). Both theory and distribution of data support such selection.

As mentioned, theoretically, positive standardized residuals indicate sales revenue that exceeds expectations, i.e., outperforming sales revenue while negative standardized residuals indicate sales revenue that falls behind expectations, i.e., underperforming sales revenue. For the outcome, a positive calibration range is selected to examine outperforming sales. When it comes to the distribution of data, the values of the standardized residuals of log of Moomin.com gross sales range from -0.79 to 1.86, with a mean of 0.38 and median of 0.23. The maximum value is 1.86 and therefore 2 is a natural selection for calibrating the full membership. Furthermore, -0.79 is the minimum value of the data but only positive values should be included for the outcome. Therefore, 0 is a justified selection for non-membership. Finally, 1 is selected for threshold for the cross-over point, falling naturally in between 0 and 2. Figure 6 displays frequency distribution of uncalibrated values of standardized residuals of log of Moomin.com gross sales and figure 7 further displays the calibration of such values. In addition to the outcome, a negated outcome is also further conducted in fsQCA software for the examination of underperforming sales. However, no separate calibration is needed.

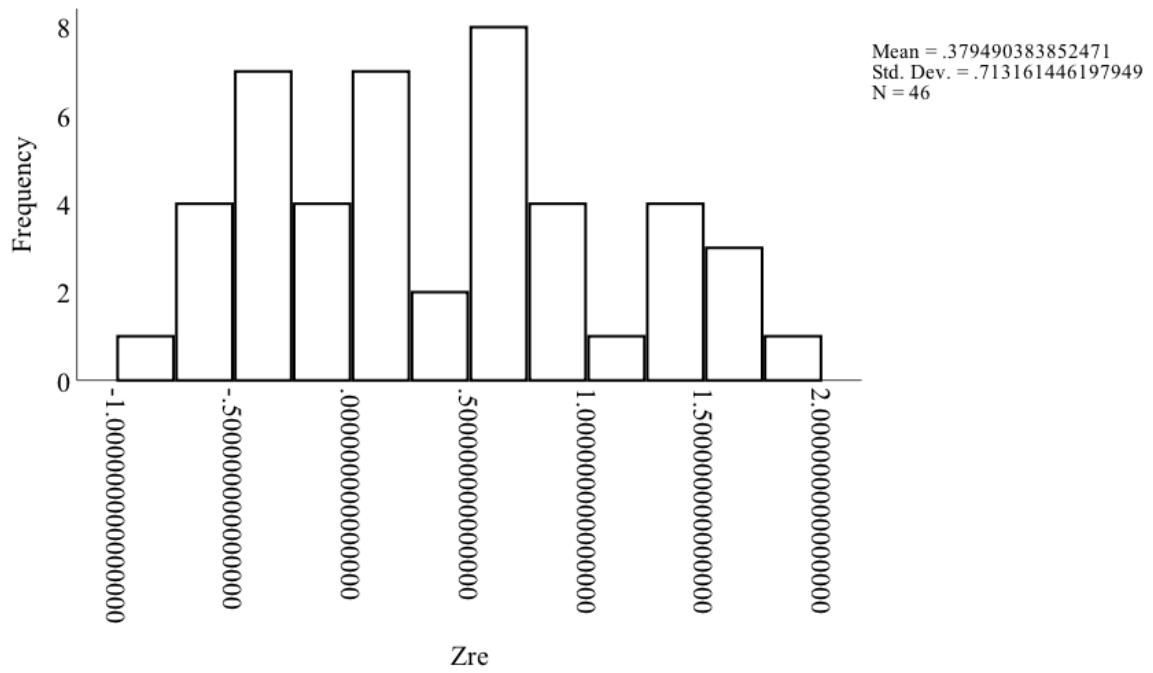


FIGURE 6. Frequency distribution of uncalibrated values, standardized residuals of log of Moomin.com gross sales (zre).

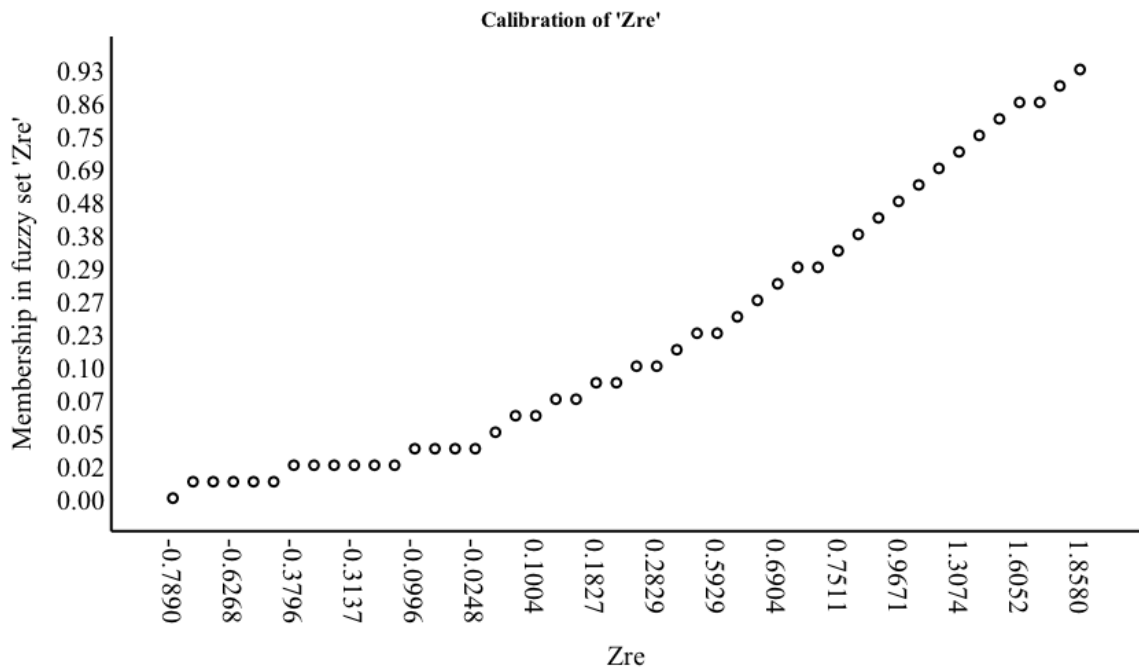


FIGURE 7. Calibration, standardized residuals of log of Moomin.com gross sales (zre).

Hofstede's cultural dimensions

For the four Hofstede's cultural dimensions, 100 is selected to calibrate the full membership (1), 50 for the cross-over point (0.5), and 0 for full non-membership (0). The selection is quite natural, as both Hofstede's theory and data collection of the four dimensions are based on a scale from 0 to 100 with 50 expressing the middle point. Furthermore, the distribution of the collected data also supports the selection. Overall, the four dimensions' values range from 5 to 100, with their mean ranging from 48.70 to 67.15 and their median ranging from 48.00 to 70.00. Frequency distributions of uncalibrated values of each Hofstede's cultural dimension and calibration of such values are presented in the figures below.

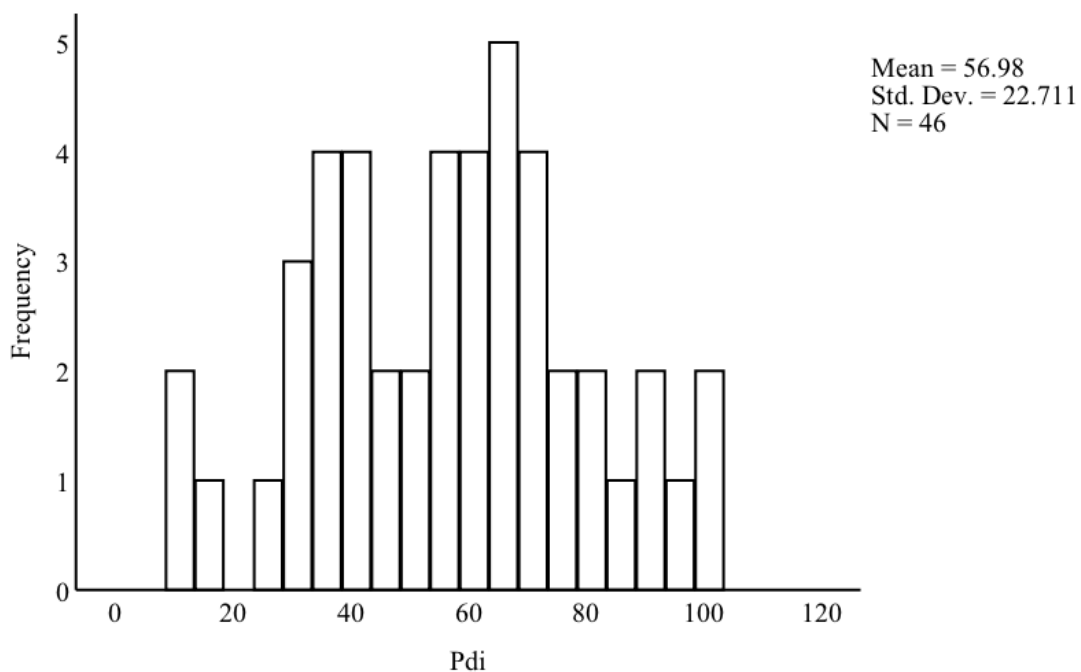


FIGURE 8. Frequency distribution of uncalibrated values, power distance (pdi).

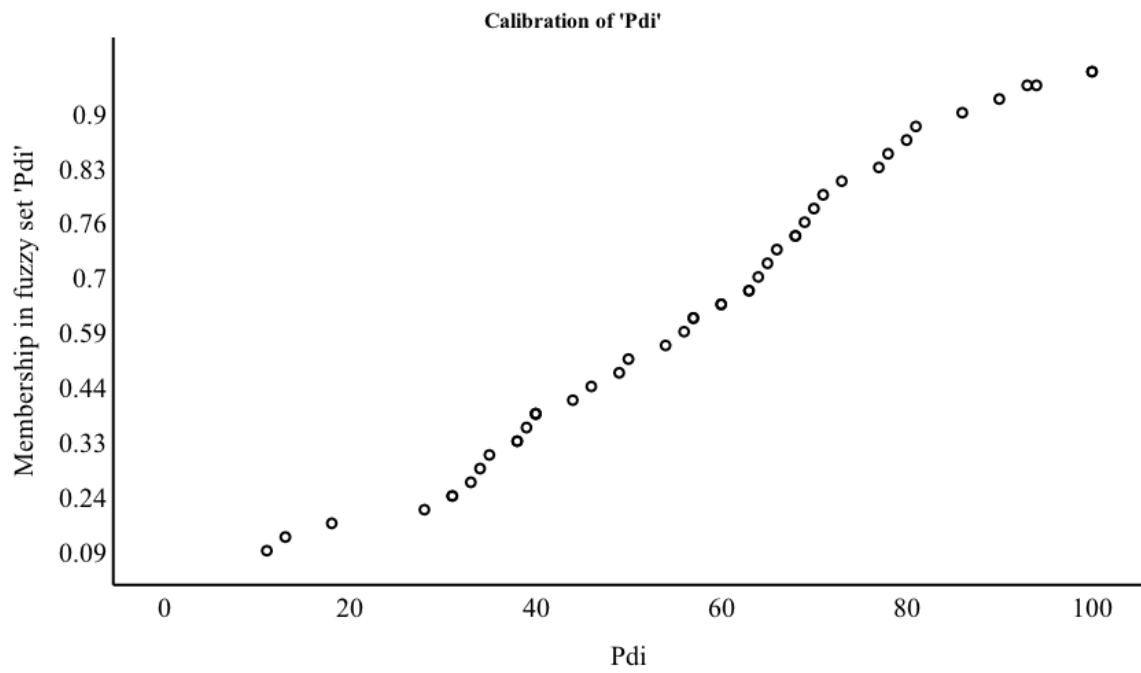


FIGURE 9. Calibration, power distance (pdi).

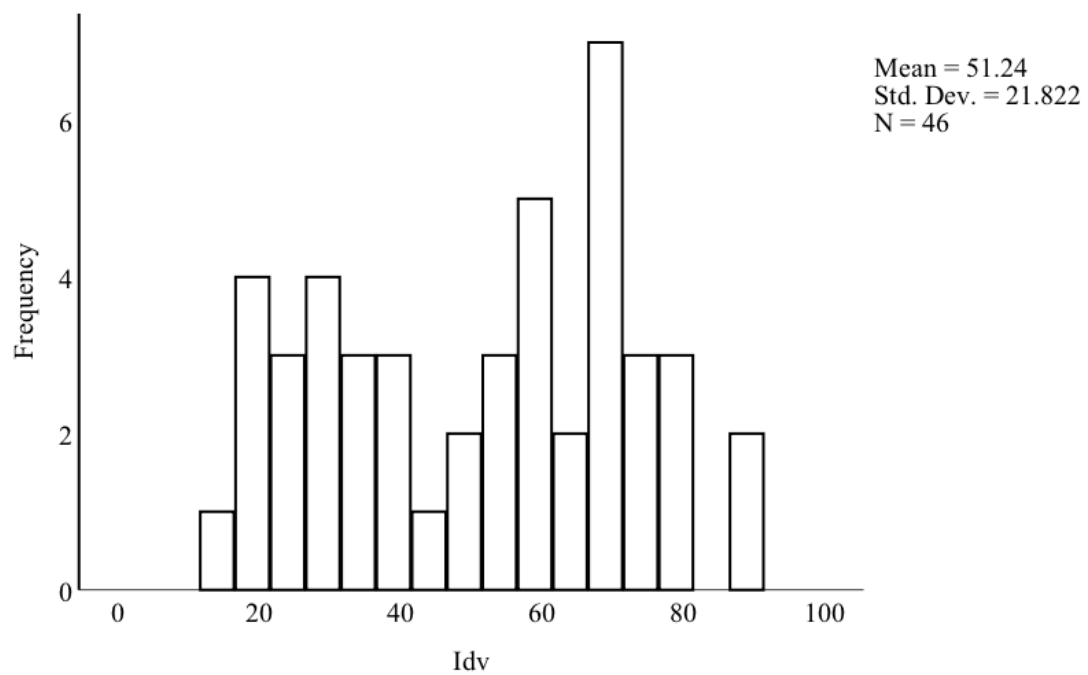


FIGURE 10. Frequency distribution of uncalibrated values, individualism - collectivism (idv).

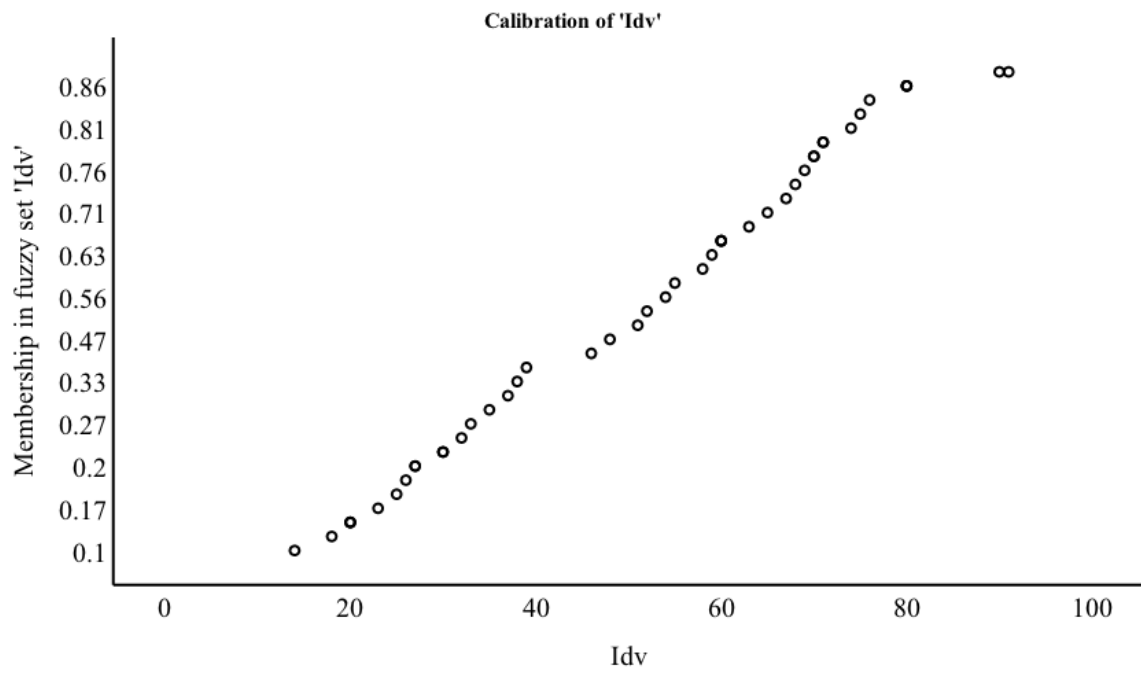


FIGURE 11. Calibration, individualism - collectivism (idv).

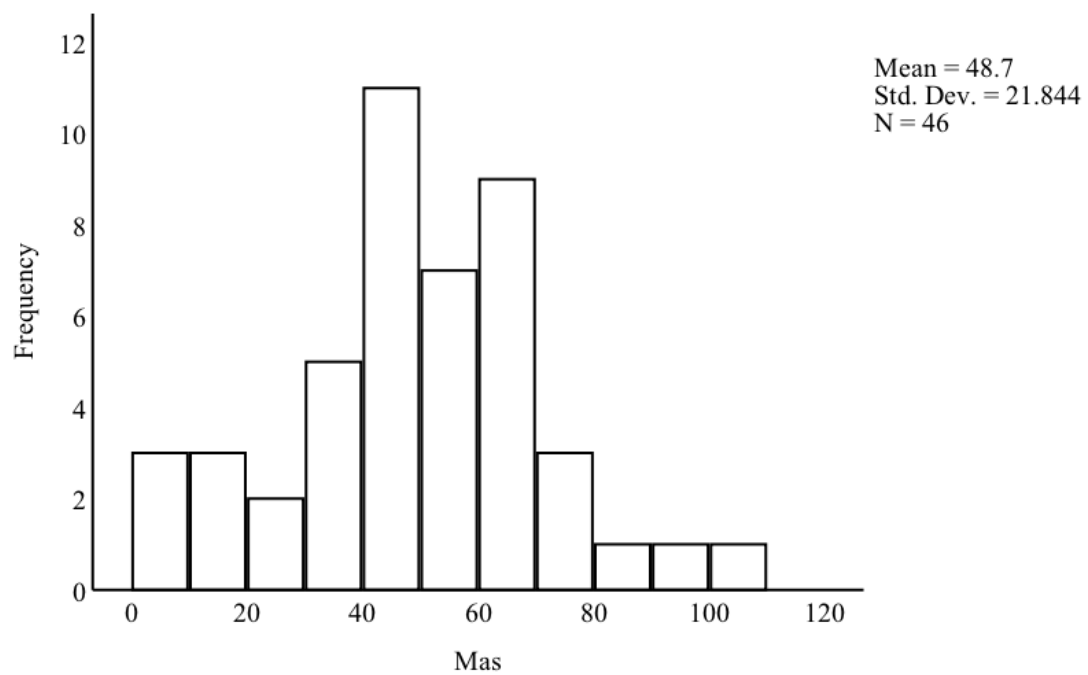


FIGURE 12. Frequency distribution of uncalibrated values, masculinity - femininity (mas).

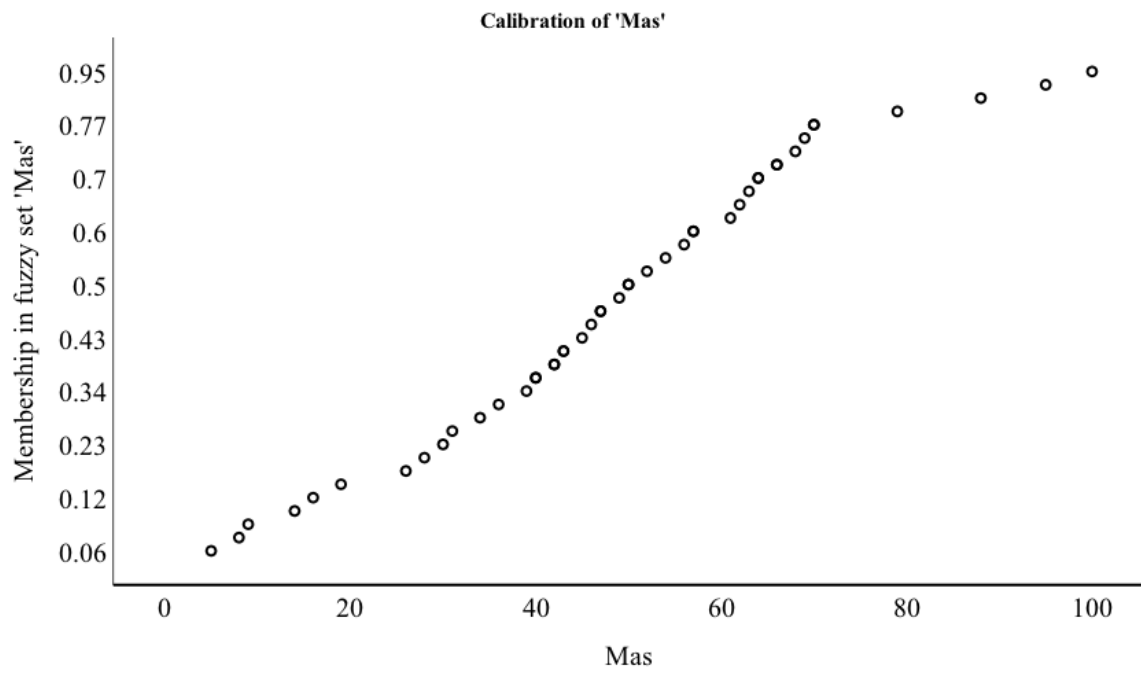


FIGURE 13. Calibration, masculinity - femininity (mas).

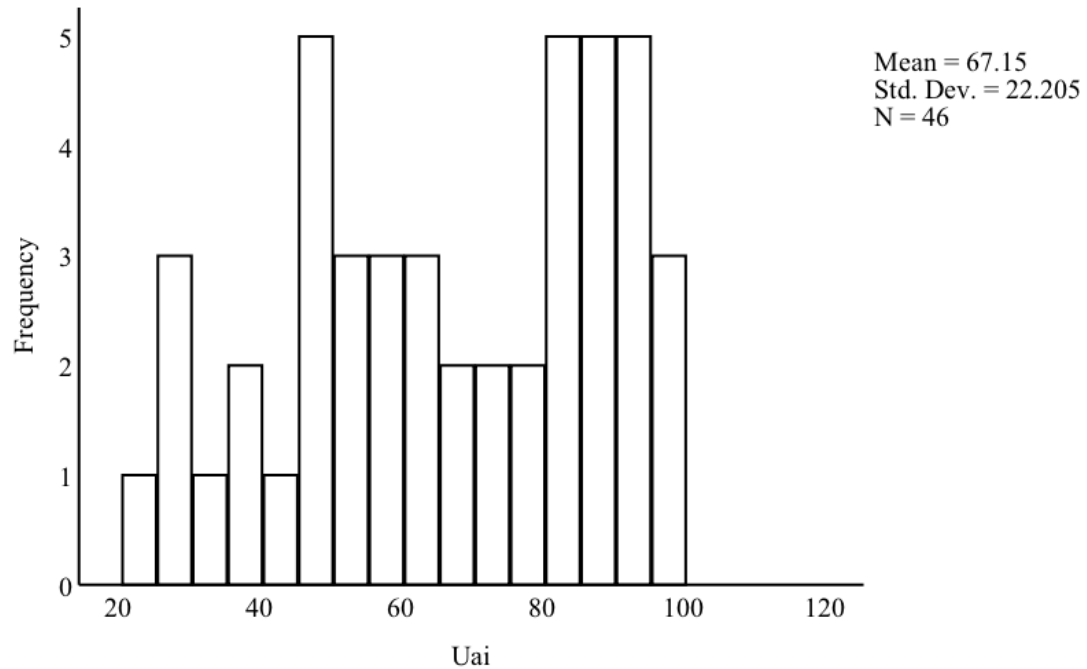


FIGURE 14. Frequency distribution of uncalibrated values, uncertainty avoidance (uai).

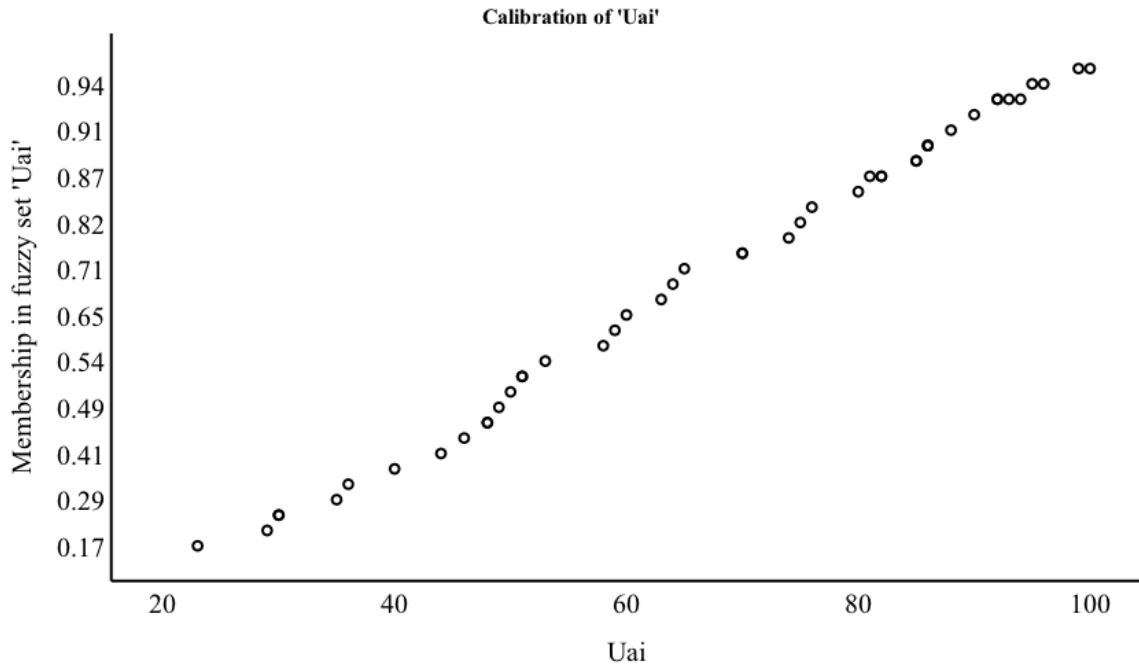


FIGURE 15. Calibration, uncertainty avoidance (uai).

8.3 Truth table

After fuzzy set calibration of conditions, the creation of an initial truth table can be started. Both the outcome and the negated outcome are processed and each is generated its own initial truth table. As a result, an initial truth table for first, configurations that bring about outperforming sales (i.e., the outcome) and second, for configurations that bring about underperforming sales (i.e., the negated outcome) are generated. In this study, there are four conditions in addition to the outcome and therefore, the number of combinations is $2^4 = 16$. As a result, there are 16 rows in both of the two initial truth tables. These two initial truth tables are displayed in appendix 3.

To create the minimized final truth table, the default values of 1 for frequency threshold and 0.8 for consistency threshold are applied. No prime implicants are selected as no condition is theoretically viewed more important for the outcome than some other one. Furthermore, all conditions are included in the analysis as present or absent conditions as all conditions may contribute to the outcome either with their presence or absence. Appendix 3 displays the two minimized final truth tables, one for the outcome and one for the negated outcome. After minimization, 10 rows remain for the minimized final truth

tables. Furthermore, the 6th column of the minimized final truth tables in appendix 3 are filled in with either 1 or 0 depending on whether the row in question meets the selected consistency threshold of 0.8.

8.4 Results

Finally, solution formulae are provided for both the outcome and the negated outcome. Next, the solution formulae are analyzed and interpreted.

Outcome

For the outcome, i.e., outperforming Moomin.com sales revenue, a *parsimonious solution* is provided as displayed in table 11.

TABLE 11. Parsimonious solution, outcome.

Configuration	Raw coverage	Unique coverage	Consistency
$\sim \text{pdi} * \sim \text{idv}$	0.456633	0.101191	0.506604
$\text{pdi} * \text{idv} * \sim \text{uai}$	0.469388	0.113946	0.639629
Solution coverage: 0.570578			
Solution consistency: 0.518948			

Two configurations of (\sim power distance * \sim individualism) and (power distance * individualism * \sim uncertainty avoidance) are provided. However, the solution consistency as well as the consistencies of both configurations are below 0.8 which indicates that there is no empirical support for the provided solution. In this case, it is pointless to further examine coverage measures nor sufficiency and necessity, as the solution formulae are not empirically supported. To conclude, there are no consistent configurations that bring about the outcome of outperforming Moomin.com sales revenue. Therefore, no specific Hofstede's cultural dimension as a such or their combinations are found to consistently lead to outperforming Moomin.com sales revenue.

Negated outcome

For the negated outcome, i.e., underperforming Moomin.com sales revenue, a *complex solution* and an *intermediate solution* are provided. However, as all conditions are included as present or absent, the intermediate solution doesn't differ from the complex solution. In such case, the two solutions are indeed identical (Ragin 2007). The complex solution is displayed in table 12.

TABLE 12. Complex solution, negated outcome.

Configuration	Raw coverage	Unique coverage	Consistency
pdi * ~ idv	0.551694	0.0473132	0.91699
~ pdi * idv	0.431951	0.062208	0.828571
pdi * uai	0.615362	0.0239486	0.922504
idv * uai	0.477512	0.0134345	0.836745
Solution coverage: 0.818341			
Solution consistency: 0.847294			

Four configurations of (power distance * ~ individualism), (~ power distance * individualism), (power distance * uncertainty avoidance), and (individualism * uncertainty avoidance) are provided. The solution consistency as well as consistencies of the four configurations are above 0.8. Therefore, the provided solution formulae are empirically supported. This indicates that there is empirical support for these four configurations to consistently bring about the negated outcome, i.e., underperforming Moomin.com sales revenue. The solution coverage is 0.82 which is also relatively high.

Regarding sufficiency and necessity, on a configurational level all four configurations are sufficient to bring about the negated outcome. Furthermore, there are no necessary combinations of conditions, instead all of the four configurations are differently constructed and none of the configurations is always needed for underperforming sales to occur. On a condition level, no condition is sufficient itself to bring the negated outcome as each path is structured of two combined conditions. Also, no condition itself is necessary as none of the conditions is present in all of the provided configurations. Below, all four configurations are analyzed in detail, including their consistency and raw coverage. Unique coverages of all configurations are minimal and the differences between each configuration are further marginal. Therefore, only raw coverage is examined more in depth.

The first path (power distance * ~ individualism) has a consistency of 0.92, and therefore there is empirical support. It has the second highest consistency score of all the four configurations. It has a raw coverage of 0.55 which is also the second highest. Therefore, this configuration is empirically the second best supported, and its proportion of explaining underperforming Moomin.com sales revenue is the second highest. This path indicates that societies of large power distance and negated individualism, i.e., collectivism, lead to underperforming Moomin.com sales revenue. Countries with clear scores in such are, e.g., Serbia, Romania, Mexico, Indonesia, Malaysia, Philippines, and China (Hofstede 2015). Six out of seven of these markets are also perceived highly unsuccessful or unsuccessful markets by Moomin Characters management. Only China is perceived a successful market. Therefore, the result of (power distance * ~ individualism) leading to underperforming Moomin.com sales revenue is also supported by the managerial view of Moomin Characters.

The second path (~ power distance * individualism) has a consistency of 0.83. There is empirical support but at the same time it is the lowest consistency score of all the four configurations. It has a raw coverage of 0.43 which is also the lowest raw coverage of all four configurations. Therefore, this configuration has the least empirical support and also the least relevance. It indicates that societies of small power distance and individualism lead to underperforming Moomin.com sales revenue. Countries with clear scores in such are, e.g., Denmark and Ireland (Hofstede 2015). Both are also perceived as unsuccessful markets by Moomin Characters management. Denmark is perceived an unsuccessful market and Ireland a highly unsuccessful market. The result is interesting as it is contrary to the first path. Taking into account the consistency and raw coverage scores, it can be however concluded that while both the first and the second path lead consistently to underperforming Moomin.com sales revenue, the first path of (power distance * ~ individualism) has empirically more support and relevance than the second path of (~ power distance * individualism).

The third path (power distance * uncertainty avoidance) has a consistency of 0.92 which indicates that there is empirical support. It has the highest consistency score. It has also the highest raw coverage of 0.62 out of all of the four configurations. Therefore, this configuration is the most empirically supported and its proportion of explaining

underperforming Moomin.com sales revenue is the highest. The path indicates that societies of large power distance and strong uncertainty avoidance lead to underperforming Moomin.com sales revenue. Countries with clear scores in such are, e.g., Russia, Serbia, Romania, and Mexico (Hofstede 2015). Again, the result is supported by Moomin Characters management's perception. Only Russia is perceived a successful market while Serbia, Romania, and Mexico are perceived highly unsuccessful. This path and the first path support each other. Serbia, Romania, and Mexico are included in both paths.

The fourth path (individualism * uncertainty avoidance) has a consistency of 0.84. Similar to the second path, such indication of empirical support is decent but highly lower than that of the first and the third path. The fourth path has a raw coverage of 0.48 which is also the second lowest raw coverage. Therefore, this configuration has the second least empirical support and also the second least relevance. It indicates that societies of individualism and strong uncertainty avoidance lead to underperforming Moomin.com sales revenue. Countries with clear scores in such are, e.g., Belgium, Hungary, and France (Hofstede 2015). This path is also supported by Moomin Characters management's perception. All three markets are perceived highly unsuccessful.

To conclude, no cultural configuration is found to consistently lead to the outcome of outperforming brand licensor sales revenue, i.e., to brand licensor sales revenue that exceeds expectations. However, four cultural configurations are found to consistently lead to a negated outcome, to underperforming brand licensor sales revenue, i.e., to brand licensor sales revenue that falls behind expectations. In order, starting with the highest consistency and raw coverage, the configurations that lead to underperforming Moomin.com sales revenue are (power distance * uncertainty avoidance), (power distance * \sim individualism), (individualism * uncertainty avoidance), and (\sim power distance * individualism). Therefore, it can be concluded, that culture contributes to explaining to some content a part of the remaining variation of 31.7%.

8.5 Validity and reliability

Matters that increase validity and reliability of the results of fsQCA are the following. The outcome and conditions are selected based on theoretical understanding. Fuzzy set

calibration of conditions is further conducted based on both theoretical understanding and nature of the collected data. Finally, to assure the quality of the minimized final truth tables, consistency threshold is set to the default value of 0.8 and frequency threshold to the default value of 1.

Matters that may decrease the validity and reliability of the results of fsQCA are the following. Only Moomin.com gross sales from the time period of 1.1.2018-31.12.2018 are included to the analysis. The population size is reduced from that of 79 in MRA to 49 in fsQCA. The solution consistency of the negated outcome is 0.85 and although it is consistent, it could also be on a higher level. Also, two configurations of the negated outcome have consistencies of 0.83 and 0.84 which are also closer to the required consistency threshold of 0.8 than perfect consistency of 1.0.

9 DISCUSSION

In this chapter, both theoretical contributions and managerial implications of the research are discussed. Furthermore, limitations of the study and future research avenues are presented.

9.1 Theoretical contributions

The aim of this study was to examine how culture affects international business performance from a brand licensor perspective. Moomin Characters was selected as a case company and Moomin.com online shop performance in sales revenue was applied as a measure for Moomin Characters' international business performance as a brand licensor. First, to examine such entity the research examined the macro environment and strategic decisions in general, and further their relationship and strengths to brand licensor sales revenue. In specific, economic and socio-cultural environments as well as strategic decisions were analyzed in relation to Moomin.com sales revenue. Second, the research concentrated especially on culture and whether there are cultural configurations that lead to outperforming brand licensor sales revenue i.e., to brand licensor sales revenue that exceeds expectations, and on the other hand, whether there are cultural configurations that lead to underperforming brand licensor sales revenue i.e., to brand licensor sales revenue that falls behind expectations. More in specific, the four Hofstede's cultural dimensions of power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance were applied to measure culture and analysis on whether certain cultural configurations lead to either outperforming Moomin.com sales revenue or to underperforming Moomin.com sales revenue was conducted.

Even though this study is conducted as a case study and it reflects the business of Moomin Characters as an extensively international brand licensor with a unique artistic and literary brand dimension, the results can be interpreted to other contexts as well. In addition to such international brand licensors that share similar values to their brand than Moomin Characters, internationally operating brand licensors in general and to some content even international companies as a such benefit from the results.

Regarding macro environment and strategic decisions, the study supports existing theory on their importance and effect on international business performance, especially from a brand licensor perspective. Furthermore, the study supports current literature regarding the importance of monitoring macro environmental forces and that the effect of strategic decisions should be emphasized in international business contexts. Indeed, the results of the research indicate that economic and socio-cultural environments as well as strategic decisions have an effect on brand licensor sales revenue. Overall the model explains 68.3% of the variation in Moomin.com sales revenue. In specific, GNI per capita, median age, subjective history behind the market success, and third-party distribution have a positive associative relationship with Moomin.com sales revenue. Regarding the strength of each relationship, third-party distribution has the strongest association, GNI per capita the second strongest, subjective history behind the market success the third strongest, and median age the weakest of the four. GINI index, inflation, geographic distance, and brick and mortar store(s) don't have an associative relationship in relation to Moomin.com sales revenue.

Regarding the main focus of the research, culture, the research succeeds to settle some of the dilemma in existing theory regarding culture, and its importance and effect on international business performance. While existing theory indicates contradictory suggestions, this research indicates that culture does affect international business performance, especially when it comes to brand licensors. Furthermore, whereas existing theory indicates both importance and unimportance of cultural fit and cultural differences to international business performance, this study shows that while a brand licensor may perform well in several different cultures without a certain cultural fit taken into account, some cultural combinations may however lead to a weaker performance than others. Indeed, while no cultural configurations are found to consistently lead to outperforming brand licensor sales revenue, four configurations are found to consistently lead to underperforming brand licensor sales revenue. Starting with the highest consistency and raw coverage, such configurations that lead to underperforming Moomin.com sales revenue are (power distance * uncertainty avoidance), (power distance * ~ individualism), (individualism * uncertainty avoidance), and (~ power distance * individualism). As a result, culture is found to contribute to explaining to some content a part of the remaining variation of 31.7% in Moomin.com sales revenue.

Furthermore, this research advances the use of multi-method approaches in cultural studies by applying both MRA and fsQCA methodologies. Research on cultural configurations is increased and the potential of fsQCA as a methodology in both international business performance and in a cultural context is also confirmed. Finally, this research reaffirms that the financial performance type with a specific sales-based metric of sales revenue is suitable to measure international business performance in cultural contexts, especially in brand licensor related studies.

9.2 Managerial implications

As discussed, as the study was conducted as a case study, the managers of Moomin Characters and the managers of similar internationally operating brand licensors with an artistic and literary dimension to their brand benefit the most from the results. However, the suggestions of the study provide also managerial implications to internationally operating brand licensors in general, and to some extent even to managers of international companies as a such.

First, when it comes to the above mentioned managers in general, the study indicates the importance of both macro environmental analysis and analysis on strategic decisions. Economic and socio-cultural environments as well as strategic decisions are suggested to have an effect on international business performance and therefore, such environments are suggested to be analyzed and taken into account in future investments and strategic decisions. Especially, the study also indicates to managers the importance of culture on international business performance measured in sales revenue. While a brand licensor or an international brand as a such may perform well in several different cultures without a certain cultural fit taken into account, some cultural combinations may however lead to a weaker performance than others. Therefore, regional cultural analysis on markets that perform well is suggested to be conducted regularly, to gain insights on how such cultures develop and how such cultural changes may affect future business performance. Managers are also suggested to review whether their company's ideologies on internationalization have supported traditional or born global approach and further analyze how culture has been emphasized in prior internationalization actions.

Second, when it comes to the case company in specific, the study indicates several implications for Moomin Characters management when it comes to future investments and strategic decisions. Markets that have a high value of GNI per capita, median age, subjective history behind the market success, and third-party distribution are found to affect positively Moomin.com sales revenue and such markets should therefore be favored in the future. Indeed, markets with a greater value in each of the four tend to be associated with greater Moomin.com sales revenue. Especially, third-party distribution has the strongest association. Furthermore, while Moomin.com may perform in several different cultures, caution should however be taken concerning the cultures that are combined of the discussed cultural combinations of (power distance * uncertainty avoidance), (power distance * ~ individualism), (individualism * uncertainty avoidance), or (~ power distance * individualism). Countries that include the configuration of (power distance * uncertainty avoidance) include, e.g., Russia, Serbia, Romania, and Mexico, (power distance * ~ individualism) include, e.g., Serbia, Romania, Mexico, Indonesia, Malaysia, Philippines, and China, (individualism * uncertainty avoidance) include, e.g., Belgium, Hungary, and France, and finally (~ power distance * individualism) include, e.g., Denmark and Ireland. Most of these markets were also subjectively perceived either unsuccessful or highly unsuccessful by Moomin Characters management before this research was conducted which supports such results and suggestions of this research to Moomin Characters management.

9.3 Limitations and future research

For more evidence to international brand licensors and international business contexts as a such, similar research with a different case company is suggested to be conducted. Furthermore, as this research included the economic and socio-cultural environments from PESTLE framework, future research could also examine the effects of political, technological, legal, or environmental environments. Regarding culture and Hofstede's cultural dimensions, the four traditional dimensions of power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance were included in this research whereas the two additional dimensions of long-term orientation versus short-term orientation, and indulgence versus restraint were excluded. Therefore, future research could also examine the effects of the two additional dimensions in a similar research setting.

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APPENDICES

Appendix 1: MRA Pearson correlations

	Log of Moomin.com gross sales	GNI per capita	GINI index
Log of Moomin.com gross sales	1.000	0.486**	-0.262*
GNI per capita	0.486**	1.000	-0.338**
GINI index	-0.262*	-0.338**	1.000
Inflation	-0.308**	-0.435**	0.121
Geographic distance	-0.043	-0.090	0.639**
Median age	0.357**	0.158	-0.535**
Subjective history behind the market success	0.592**	0.297**	-0.241*
Brick and mortar store(s)	0.396**	0.089	-0.034
Third-party distribution	0.704**	0.213*	-0.130

*Sig. < 0.05

**Sig. < 0.01

	Inflation	Geographic distance	Median age
Log of Moomin.com gross sales	-0.308**	-0.043	0.357**
GNI per capita	-0.435**	-0.090	0.158
GINI index	0.121	0.639**	-0.535**
Inflation	1.000	-0.004	-0.216*
Geographic distance	-0.004	1.000	-0.427**
Median age	-0.216*	-0.427**	1.000
Subjective history behind the market success	-0.198	0.169	0.184
Brick and mortar store(s)	-0.153	0.108	0.197*
Third-party distribution	-0.223*	0.011	0.193*

*Sig. < 0.05

**Sig. < 0.01

	Subjective history behind the market success	Brick and mortar store(s)
Log of Moomin.com gross sales	0.592**	0.396**
GNI per capita	0.297**	0.089
GINI index	-0.241*	-0.034
Inflation	-0.198	-0.153
Geographic distance	0.169	0.108
Median age	0.184	0.197*
Subjective history behind the market success	1.000	0.364**
Brick and mortar store(s)	0.364**	1.000
Third-party distribution	0.529**	0.445**

*Sig. < 0.05

**Sig. < 0.01

	Third-party distribution
Log of Moomin.com gross sales	0.704**
GNI per capita	0.213*
GINI index	-0.130
Inflation	-0.223*
Geographic distance	0.011
Median age	0.193*
Subjective history behind the market success	0.529**
Brick and mortar store(s)	0.445**
Third-party distribution	1.000

*Sig. < 0.05

**Sig. < 0.01

Appendix 2: FsQCA Pearson correlations

	Zre	Pdi	Idv	Mas	Uai
Zre	1.000	-0.147	0.395**	0.180	-0.254
Pdi	-0.147	1.000	-0.653**	0.155	0.203
Idv	0.395**	-0.653**	1.000	0.076	-0.211
Mas	0.180	0.155	0.076	1.000	0.081
Uai	-0.254	0.203	-0.211	0.081	1.000

*Sig. < 0.05

**Sig. < 0.01

Appendix 3: FsQCA truth tables

FsQCA initial truth table, outcome.

Pdi	Idv	Mas	Uai	Number	Zre	Raw consistency	PRI consistency	SYM consistency
1	0	0	1	11		0.381262	0.0721951	0.0721951
0	1	0	1	5		0.487947	0.143255	0.143255
0	1	1	1	5		0.522412	0.229961	0.235849
0	1	1	0	4		0.551899	0.146988	0.146988
1	1	1	1	4		0.485039	0.148437	0.148437
1	0	1	0	3		0.586729	0.152744	0.153477
1	1	0	1	3		0.520536	0.139849	0.13985
1	0	1	1	3		0.430469	0.0772151	0.0772151
1	0	0	0	2		0.613826	0.142857	0.142857
0	1	0	0	2		0.544468	0.123173	0.126882
0	0	0	0	0				
1	1	0	0	0				
0	0	1	0	0				
1	1	1	0	0				
0	0	0	1	0				
0	0	1	1	0				

FsQCA minimized final truth table, outcome.

Pdi	Idv	Mas	Uai	Number	Zre	Raw consistency	PRI consistency	SYM consistency
1	0	0	1	11	0	0.381262	0.0721951	0.0721951
0	1	1	1	5	0	0.522412	0.229961	0.235849
0	1	0	1	5	0	0.487947	0.143255	0.143255
0	1	1	0	4	0	0.551899	0.146988	0.146988
1	1	1	1	4	0	0.485039	0.148437	0.148437
1	0	1	0	3	0	0.586729	0.152744	0.153477
1	1	0	1	3	0	0.520536	0.139849	0.13985
1	0	1	1	3	0	0.430469	0.0772151	0.0772151
1	0	0	0	2	0	0.613826	0.142857	0.142857
0	1	0	0	2	0	0.544468	0.123173	0.126882

FsQCA initial truth table, negated outcome.

Pdi	Idv	Mas	Uai	Number	~ Zre	Raw consistency	PRI consistency	SYM consistency
1	0	0	1	11		0.951854	0.927805	0.927805
0	1	0	1	5		0.914381	0.856745	0.856745
0	1	1	1	5		0.841891	0.745072	0.764151
0	1	1	0	4		0.922785	0.853012	0.853012
1	1	1	1	4		0.910236	0.851562	0.851563
1	0	1	1	3		0.952344	0.922785	0.922785
1	0	1	0	3		0.923166	0.842482	0.846523
1	1	0	1	3		0.922045	0.86015	0.86015
1	0	0	0	2		0.935638	0.857143	0.857143
0	1	0	0	2		0.920824	0.847599	0.873119
0	0	0	0	0				
1	1	0	0	0				
0	0	1	0	0				
1	1	1	0	0				
0	0	0	1	0				
0	0	1	1	0				

FsQCA minimized final truth table, negated outcome.

Pdi	Idv	Mas	Uai	Number	~ Zre	Raw consistency	PRI consistency	SYM consistency
1	0	0	1	11	1	0.951854	0.927805	0.927805
0	1	0	1	5	1	0.914381	0.856745	0.856745
0	1	1	1	5	1	0.841891	0.745072	0.764151
0	1	1	0	4	1	0.922785	0.853012	0.853012
1	1	1	1	4	1	0.910236	0.851562	0.851563
1	0	1	1	3	1	0.952344	0.922785	0.922785
1	0	1	0	3	1	0.923166	0.842482	0.846523
1	1	0	1	3	1	0.922045	0.86015	0.86015
1	0	0	0	2	1	0.935638	0.857143	0.857143
0	1	0	0	2	1	0.920824	0.847599	0.873119